



**Powering Our Community  
for Today and Tomorrow**

# Oyster Creek Generating Station Environment Fact Sheet

## Air Quality

Oyster Creek Generating Station's positive impact on the air quality of Ocean County and New Jersey is substantial.

- Oyster Creek produces 9 percent of New Jersey's electricity without producing greenhouse gas emissions.
- Each year it operates, Oyster Creek essentially avoids some 7.5 million metric tons of carbon dioxide that would be produced in coastal New Jersey by a replacement fossil power plant.

Nationwide, without nuclear power generation, some 134 million automobiles would have to be eliminated to keep the country's nitrogen oxide, carbon dioxide and other emissions from increasing.

If Oyster Creek were replaced by a coal plant, the replacement plant would produce carbon emissions including nitrogen oxide and carbon dioxide equivalent to that produced by 1 million cars.

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## Environmental Monitoring

- Oyster Creek and all U.S. nuclear energy plants are required by the U.S. Nuclear Regulatory Commission (NRC) to maintain an environmental monitoring program to ensure that radiation levels around the facilities are negligible.
- The NRC requires nuclear plants to extensively monitor air, water, soil and food products around their facilities. Laboratories where Oyster Creek's samples are analyzed must be cross-checked with other laboratories to insure precision and accuracy of measurements. All measurements are submitted annually to the NRC and placed in local libraries.
- The NRC conducts periodic on-site inspections of each licensed plant's environmental monitoring programs to ensure compliance with NRC requirements.
- Thermoluminescent Dosimeters (TLDs) are staged at 59 locations in the 10-mile radius around Oyster Creek Generating Station. Nineteen of these locations are at about the site boundary of the plant. Additional TLDs are staged at 31 locations between the site boundary and a five mile radius of the plant. Nine TLDs are located at special interest sites, including state parks and population centers. Additional TLDs are located at two locations more than 20 miles from Oyster Creek to measure background radiation.
- The dosimeters are collected on a quarterly basis and are analyzed by an independent lab for ambient gamma radiation. Each station has two TLDs with three detectors in each TLD, for a total of six independent radiation detectors at each location around Oyster Creek.
- Oyster Creek monitors the local municipal drinking water supplies for tritium and gamma emitting radionuclides.
- Because of the municipal wells' depth and distance from Oyster Creek, there is no plausible pathway for effluents from the plant to contaminate these wells. The samples are collected to provide assurance to the public that these water supplies are not impacted by Oyster Creek operations.
- Samples are collected weekly by Normandeau Associates, Inc., an environmental consultant hired by Exelon. The weekly samples are combined into a monthly composite sample that is analyzed by Teledyne Brown, Inc., a contract laboratory.

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## Environmental Assistance

Oyster Creek is involved in several area environmental projects. Recent support includes:

- Donating \$10,000 to the Marine Mammal Stranding Center that's goal is to rehabilitate stranded whales, dolphins, seals and sea turtles for release back to the environment.
- Donating \$1,000 to ReClam the Bay, an organization dedicated to providing education and awareness about the environmental benefit of shellfish filtering, feeding and cleaning our estuary.
- Donating \$80,000 to the "Sport Fish Fund," a not-for-profit organization that administers the reef-building fund. The donation was used to construct a 46-acre patch reef within the Barnegat Light Reef, located 3.5 nautical miles offshore of Barnegat Lighthouse. The NJ Department of Environmental Protection Division of Fish and Wildlife oversees the Artificial Reef Program.
- Purchasing a boat for the Rutgers Cooperative Extension Service Clam Restoration Project. The project team is working to re-establish clam beds in the Barnegat Bay. The project team will use this boat to more effectively implement this and other important bay environmental projects into the future.
- Donation of a research boat to the Ocean County Vocational Technical School Marine Academy of Technology and Environmental Science (MATES) and financial support of the MATES terrapin research programs and curriculum development.

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## Life-Cycle Emissions

Opponents of nuclear energy point out that emissions associated with the life cycle of a nuclear energy plant – construction of the plant, mining and processing fuel, operation of the plant, and disposal of used fuel and other waste by-products – create air pollutants.

What they fail to point out is that emissions associated with fossil-fuel plants create similar air pollutants. Fossil-fuel plants, unlike nuclear plants, continue to emit harmful emissions every day they operate. By avoiding continuous burning of fossil fuels for power production, the use of nuclear power helps the country minimize the depletion of valuable and limited fossil fuel natural resources. By decreasing our reliance on foreign suppliers of fossil fuels, the use of nuclear power also enhances our national economy and national security.