



# Welcome to Nuclear Information and Resource Service

NIRS is the information and networking center for citizens and environmental organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy issues. We're located at 1424 16th Street NW, #404, Washington, DC 20036; 202-328-0002; fax: 202-462-2183; e-mail

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<a href="#">Get Involved!</a>	<a href="#">NIRS Campaigns</a>	<a href="#">NIRSNET on the Web</a>	<a href="#">About NIRS</a>	<a href="#">Fact Sheets</a>
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## **ALERT! House to vote on Mobile Chernobyl bill week of March 20-24, 2000!**

**International news and information**

**U.S. News and Information**

**New Area! Stop release and "recycling" of contaminated materials!**

**NIRS Files Petition to Intervene in Oyster Creek license transfer from GPUN to Amergen. Press Release; Text of Contentions.**



You can now donate to NIRS (and dozens of other social change organizations) online through GiveforChange, operated by Working Assets Funding Service! We appreciate whatever you can give to help us provide our services across the world. Just click on the image (and then come back to NIRS when you're done...).

## **GET INVOLVED!**

- Actions and Events! A frequently-updated list of upcoming actions, conferences, and other events you can participate in.
- NIRS Alerts
- Join NIRS E-Mail Alert List

## **NIRS CAMPAIGNS**

Don't Waste America

NIX MOX Campaign

Nuclear Free Northeast Campaign

Nuclear Free Great Lakes Campaign

Eastern Europe/Newly Independent States

Reactor Watchdog Project

Radioactive Release and "Recycling"

**New!** The NIRS WebBoard is faster, allows you to leave messages, attach files, read messages, receive messages and otherwise discuss just about any issue you want. It also features real-time chat! Now with an extensive Help section too. It's up to you how you use it, but give it a try!

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## FACTS AND INFO

- [NIRS Fact Sheets](#)
- [NIRS Press Releases](#)
- **New!** [Maps of nuclear reactor sites: World Map; U.S. Map; Southeast US; Northeast US; Central US; Western US.](#)

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## NUCLEAR MONITOR ONLINE

[Nuclear Monitor Online](#). Includes selected articles from NIRS' unique newsletter, The Nuclear Monitor. Often includes material omitted from printed version for lack of space.

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## NIRS TOOLBOX

[The NIRS Toolbox!](#) Hundreds of articles, reports, testimony and other material gathered by NIRS on everything from decommissioning to wind energy, from Chernobyl to radioactive waste. Also lists numerous other sources of information on nuclear power and energy issues.

**New! SPECIAL SALE!** We are now offering the *NIRS Energy Audit Manual: How to Audit Campus, City and Other Buildings* for only \$6.00, which includes shipping and handling. This book was published in 1992 and originally priced at \$24.95. It enables grassroots and campus groups (perhaps even high school) to take step-by-step energy audits of buildings of nearly any size, and implement energy efficiency improvements. To order by credit card (Visa, MasterCard, Discover) call 202-328-0002 or fax to 202-462-2183 with your card type, number, expiration date and signature. Or send your check to NIRS, 1424 16th Street NW, #404, Washington, DC 20036. Bulk orders (limited to stock on hand) are also available.

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## LINKS

[Link to dozens of U.S. and international web sites!](#)

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## CHERNOBYL + 10

[Chernobyl + 10: No More Chernobyls](#) This area includes information on the 10th anniversary of the Chernobyl nuclear disaster and resources on Chernobyl-related issues.

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## NIRS FUN PAGE

You've made it this far down, so welcome to the NIRS fun page. Right now, we have a [crossword puzzle](#) for you (Java-equipped browsers only!). Cartoons and more are on the way....





For more information about NIRS or to comment on this website, send e-mail to: [nirsnet@nirs.org](mailto:nirsnet@nirs.org)

Note: NIRS survives on contributions from people who use and/or appreciate our services. We thank you for your support. Please send your tax-deductible contributions to NIRS, 1424 16th Street NW, #404, Washington, DC 20036. You may also contribute with Visa, Mastercard and Discover card. If you have any questions about NIRS or our activities, please feel free to call 202-328-0002, fax to 202-462-2183 or e-mail to [nirsnet@nirs.org](mailto:nirsnet@nirs.org). THANKS!



## **Nine Mile Point**

Scriba, NY (3 reactors)

Population: Oswego County, ~45,000

Onondaga County ~250,000

Syracuse ~180,000

### **Nine Mile Point, Units 1 & 2 (NM1 & NM2)**

**Operator:** Niagara Mohawk Power Corporation (NiMo)

**Design:** NM1 -- GE Mark I (610MW)

NM2 -- GE Mark II (1080 MW)

**Construction cost:** NM1 -- \$160 million

NM2 -- \$6.4 billion

**Start-up:** NM1 -- December 1, 1969

NM2 -- March 11, 1988

### **James A. FitzPatrick**

**Operator:** New York Power Authority (NYPA)

**Design:** GE Mark I (780 MW)

**Construction cost:** \$419 million

**Start-up:** 1975

### **Ginna**

Ontario, NY

**Operator:** Rochester Gas & Electric

**Reactor type:** Pressurized Water Reactor

**Reactor output:** 485MW

**Start of operation:** July 1, 1970

In June 1999, NiMo made a deal with AmerGen Energy Co. to sell NM1 & 2, making Nine Mile Point AmerGen's largest takeover to date.

#### **The Deal**

\* \$163 million from AmerGen

\$135 million to NiMo for NM1 and its 41% share of NM2

\$28 million to NY State Electric & Gas for 18% of NM2

total includes ~\$70 million for fuel

\* \$380-420 million from NiMo to AmerGen

\$300 million decommissioning fund

NiMo adds \$80-\$120 million to the fund

Through NiMo's restructuring agreement with NYS last year, NiMo's stranded costs will be paid for through the rate base over the next 15 years, and AmerGen will be paid (through NiMo) for electricity from the reactors: from NM1 for 5 years, and from NM2 for 3 years. The deal must still be approved by the State Public Service Commission. The State Attorney General's Office is critical of the deal.

New York CAN, Syracuse Anti-Nuclear Effort and other grassroots groups are opposing the terms of the sale and calling for shutdown. The prospect of a new operator taking over will further compromise the health and safety of the community and the region, and the economic injustice of the deal will put unfair burdens on poor/low-income communities and endanger the economic security of people in NYS.

## Nine Mile Point-1

NM1 has been plagued with operational and safety problems throughout its life. Systemic mismanagement resulted in ~200 cited violations between 1979 and 1996, or nearly 1/month. NRC shut the reactor for over 2 years between 1987-89 after NiMo revealed they had covered up huge waste-handling problems at NM1. For years, the waste building was flooded with 40,000 gallons of primary coolant water; three months prior to that announcement, NM1 dumped 50,000 gallons of coolant directly from the reactor into Lake Ontario.

In recent years, cracking in the reactor's internals has made NM1 "the worst case of cracking in the nuclear industry" (Union of Concerned Scientists). Although the most attention has focused on the core shroud, a number of other cracked pieces (emergency condensers, main drain line, control rod stub tubes) suggest the problem is pervasive and safety margins may be eroding at an alarming rate. However, NRC has recently opted out of its oversight role as it has abdicated to NiMo's self-assessments of reactor safety. Public review of studies and inspection data in the last year has shown inconsistencies and errors in NiMo and NRC's handling of the core shroud, resulting in two 2.206 petitions calling for more thorough inspections and public reviews of the reactor's safety. Both were rejected by NRC.

## Nine Mile Point-2

Rising costs and delays resulted in a 15-year construction and a cost of at least \$6.4 billion, making NM2 the most expensive reactor in the world.

Many of the cost overruns were due to faulty construction work, which continue to plague the plant through an array of system failures and accidents. In 1991, an electrical system failure in the control room nearly resulted in a meltdown. In April 1999, a virtually identical event caused a

dangerously low coolant level, and the reactor core isolation cooling system (RCIC) malfunctioned. Since then, the RCIC has been declared inoperable on three other occasions, including during another emergency shutdown (low water coolant level) on the day the AmerGen deal was announced. Last summer, after only 10 years of operation, large cracks were found in NM2's core shroud. Poor design, premature aging, and insufficient regulation make NM2 an unknown danger.

## James A. FitzPatrick

FitzPatrick was built for New York Power Authority under the direction of Niagara Mohawk. It is one of the pilot plants in NRC's new performance review program, which is replacing the a previous effort aimed at publicly indentifying "problem" reactors. NRC is using FitzPatrick and seven other sites around the country to test the process. Local groups are watchdogging how it plays out at FitzPatrick to assess whether the new reporting and decision-making processes really make NRC more consistent, effective and accountable. The process has already come under heavy criticism, most notably from the US General Accounting Office. It is unclear whether the problems of agency culture, poor communication among staff, and lack of accountability will be effectively addressed. Also, one of the major problems with NRC's credibility is its lack of responsiveness to the public's concerns, which NRC review staff have admitted is outside the scope of the new process.

## Ginna

Ginna is located in Ontario, NY on the shore of Lake Ontario, 20 miles east of Rochester (pop. 250,000), 60 miles northwest of Syracuse (pop. 150,000) and 45 miles southwest of Nine Mile Point. In 1996, Ginna replaced its steam generators with a procedure unheard of at the time. A hole was cut in the containment and cranes were used to lift the generators out through the top of the reactor building and to lower the new ones inside. The interior of the reactor was left open for a full four days. RG&E claims to have a clean track record and to be a responsible, safety-conscious operator. However, using methods such as the one used to replace the steam generators -- which both permanently compromise the reactor's containment and allow uncontrolled release of radioactivity -- have raised questions among Central New York watchdogs.

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## INDIAN POINT

Buchanan, NY; 24 miles from New York City line

### Unit 1

Operator: Consolidated Edison

Design: 265 MW, Babcock & Wilcox PWR

Construction permit: 1955  
Operating license: 1962  
Permanently closed: October 1974

## Unit 2

Operator: Consolidated Edison  
Design: 975 MW, Westinghouse PWR  
Construction permit: 1966  
Operating license: 1971  
Commercial operation: 1973

## Unit 3

Operator: New York Power Authority  
Design: 965 MW, Westinghouse PWR  
Construction permit: 1969  
Operating license: 1975  
Commercial operation: 1976

## Unit 1

When Unit 1 was built, the Atomic Energy Commission had no siting criteria for atomic reactors, thus it was built on an active earthquake fault line 24 miles from New York City. The reactor had no emergency core cooling system and because of that was forced to close in 1974. The reactor had never received a full operating license; instead it had run 12 years on a "provisional" license. However, since the site already had been approved for the reactor, and even though the site failed 5 of 6 site criteria according to 1979 NRC rules, IP-2 and -3 were allowed to be built and operate.

## Units 2 and 3

Aug 1972: Westinghouse replaces defective fuel system at IP2 at \$10 million cost.

Nov 1972: ConEd President expresses disappointment at nuke plants' operations, noting that frequent breakdowns and repairs make plants uneconomical.

1975: As part of a controversial state bail-out of ConEd, IP3 is bought by NYPA for \$349 million.

Jan, 1976: Robert D. Pollard, NRC safety engineer and project manager for IP2 resigns, calling IP2 "an accident waiting to happen," and citing design deficiencies in both IP plants.

July, 1977: A transformer explosion at IP triggers a major blackout and causes dozens of people to flee, fearing a major accident.

Sept 1979: UCS, NYPIRG, and WESPAC petition the NRC to decommission IP1 and suspend operations at IP2 & 3, citing over 60 unresolved safety deficiencies, including problems in plant design.

Oct 17, 1980 to 1982: Con Ed discovers over 100,000 gallons of radioactive water spilled in the containment building of IP2, with water rising 25 feet in a floor cavity and eventually rising nine feet up the reactor vessel. No one had checked the area since Oct 3, despite warning lights showing water build-up, hence it is unclear how long the water had been leaking. Con Ed attempted to restart the reactor three times, without first checking on possible damage from the spill. A UCS study showed 24 equipment failures and 21 management & operations errors in the period from Oct 1 to 20. IP2 is shut for 8 months; ConEd attempts to recoup losses from the shut down, estimated at \$800,000/day, with a 10% rate hike; WESPAC, NYPIRG, and 20 other groups organize a ratepayers boycott, which by Dec. includes nearly 1 million customers.

1980-82: UCS, NYPIRG, and WESPAC initiate legal action to close IP pending NRC analysis of the consequences of a major accident. Subsequent NRC hearings on IP operations and emergency planning are stalled when the hearing board chair resigns in protest of a ruling that excludes much anti-nuclear testimony. The board declines the activists' petition. A *NY Times* editorial calls the hearing a "kangaroo conference," and states that the "regulatory game" is likely rigged against anti-nuke activists. Former NRC Commissioner Peter Bradford states afterwards, "Nowhere has the commission majority's hostility to fundamental legal concepts of fairness been more clearly shown than in the Indian Point hearings."

Dec, 1992: The FBI seizes NYPA records regarding a meeting at which a senior plant manager knowingly lied to the NRC; in addition, the FBI seizes records showing that 25-30 plant operators admitted to "occasionally" falsifying log entries.

June-Oct, 1993: NRC fines NYPA \$300,000 for 17 safety violations disclosed in April, 1993, including defects that caused a six month failure in a backup reactor shutdown system. NYPA also admits that it has been issuing inaccurate reports on radiation releases for 13 years. The utility was issuing the information assuming that a filtering device that was disconnected in 1980 had still been operable; the NRC's resident inspector notes "They released more (radiation) than they thought they released."

Nov, 1993: Two original safety valves at IP3 found to be insufficiently rated; in the rush to replace them before an upcoming NRC inspection, engineers install them backwards, blocking both cooling systems and disabling backup generators.

May, 1994: After an NRC directive forces the utility to inspect its spent fuel pool at IP1, Con Ed admits that water has been leaking for four years, with estimates of up to 150 gallons of radioactive water leaking each day.

Sept, 1994: NY Assembly holds hearings on IP3 that challenge the notion that the plants' generate energy cheaply enough to balance the public safety, health, and environmental costs. Testimony shows that other energy options are cheaper, that IP3 has run at only 42% efficiency over its lifetime, that it ranks 95th out of 109 US nuclear plants in its lifetime capacity factor and that rate payers could save up to \$140 million/year from closing IP3.

July 19, 1995: IP3 restarted after 2 1/2 year shut down. NYPA, having replaced 19 of its top 27 managers, claims that a "nuclear religion" instituted at the plant will insure safe operations.

September 14, 1995: NYPA shuts IP3, again, citing need to review safety & operational procedures. NYPA expects shutdown to last 2-3 months, instead it lasts seven months.

August 20, 1998: NRC proposes \$55,000 fine against Indian Point 3 plant operator for violation involving emergency system design change: NYPA modified two emergency diesel generators so that they "would have failed due to room overheating or loss of fuel unless operators recognized the loss of power to the auxiliaries and took appropriate action to manually restore power." The NRC also cited NYPA for a violation for failing to address a degraded valve that supplies cooling to reactor pump components.

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