



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20586

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JAN 27 1980

ALL LICENSEES OF OPERATING PLANTS AND HOLDERS OF CONSTRUCTION PERMITS

Gentlemen:

SUBJECT: ANALYSIS, CONCLUSIONS, AND RECOMMENDATIONS
CONCERNING OPERATOR LICENSING (GENERIC LETTER No. 91-02)

In a letter dated March 28, 1980, from H. R. Denton we informed you of the revised criteria to be used by the staff in evaluating reactor operator training and licensing that could be implemented under the current regulations. We also advised you that Commission review in the area of operator training and qualification was continuing and it could be expected to result in additional criteria.

As part of our continuing review, we issued a contract (NRR-80-117) to Analysis & Technology, Inc., to conduct a study of the requirements for operator licensing. Analysis & Technology submitted their report to us on November 30, 1980 (NUREG/CR-1750). This report provides an independent perspective to the U.S. Nuclear Regulatory Commission regarding the requirements and practices for control room operator licensing. Analysis, conclusions and recommendations are provided in the following areas:

- Selection, training and certification of control room operators,
- Effectiveness of the NRC operator licensing program,
- Methods to assure continued competence of operators,
- Methods for maintaining a highly motivated and dedicated operator work force,
- Upgrading of presently licensed operators to meet proposed requirements,
- Training and qualification of non-licensed operating, maintenance and technical support personnel,
- Qualifications of Operator Licensing Branch (OLB) examiners, and
- Organization of the OLB.

Based on our review of this report we intend to develop additional criteria for the requirements for operator licensing.

We would appreciate it if you would review this report and offer any comments you believe appropriate to assist us in the development of improvements in the operator licensing program. Your response to this request is voluntary.

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Atomic Energy Commission grants license. December: First commercial power generated.

1973 — January: Minor radiation leak shuts plant down. August: Leaks in steam-generator tubes cause shutdown.

1974 — Consumers Power Co. slaps \$300-million lawsuit on five firms that built and/or equipped plant.

1975 — April: Plant starts up after 19-month shutdown. July: Low-level radioactive material accidentally released into lake. December: Three-month shutdown to refuel and check generator pipes.

1976 — March: Consumers disciplines four workers who refuse to work in plant they claim it is unsafe. October: Shutdown to repair leak.

1977 — Plant's available capacity

equipment. August: Power Engineering names Fallsides best-performing nuclear plant in U.S. and 11th best in world for its 1977 performance.

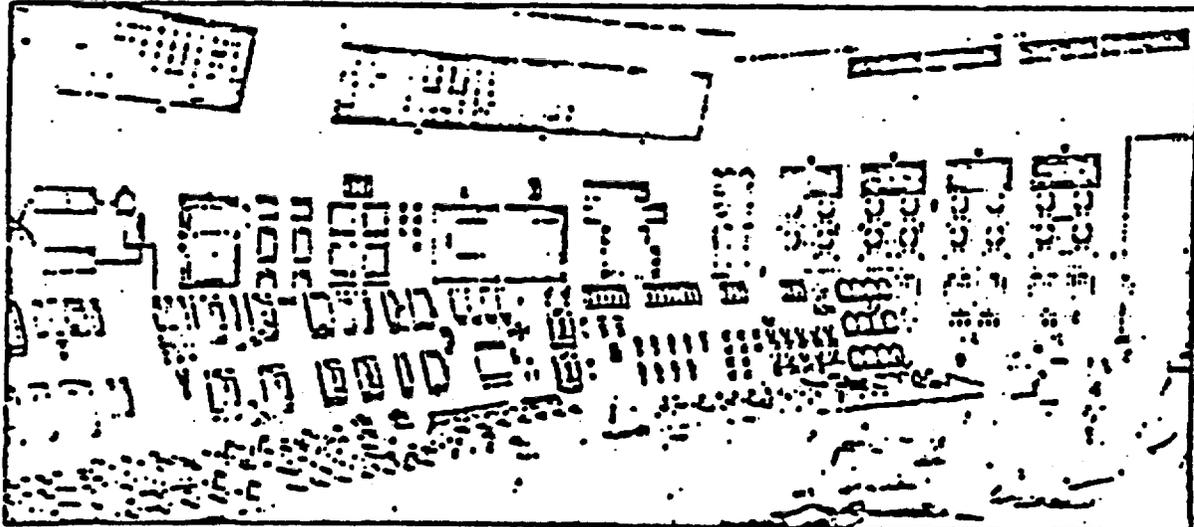
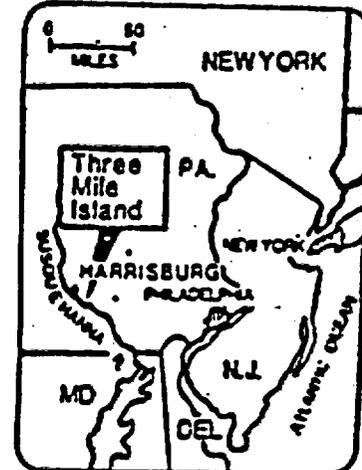
1978 — September: Eight-month shutdown for refueling, maintenance and testing. November: NRC fines Consumers \$450,000 for permitting two radiation-control valves to be open for 18 months.

1980 — July: Nine-day shutdown to replace filter casing; "human error" causes crucial water-cooling control valve to be left open for 36 hours. August: Two accidental releases of radioactivity one week apart. December: NRC rates plant's performance "well below average."

1981 — January: Power inadvertently left off to system operating emergency-warning system.

Metropolitan Edison is near bankruptcy.

Compiled from Associated Press and United Press International reports



An operator sits in the control room at Fallsides nuclear plant.

Key safety role

Operator polices nuke fuel

The most critical job in an atomic power plant is the reactor operator: he controls the rate at which the nuclear fuel is used.

While the power company selects and trains him, the federal government decides if he can legally perform his job.

Typically, explains a Nuclear Regulatory Commission (NRC) spokesman, a reactor operator is a junior-college graduate with mathematical and engineering abilities. He takes a year or more

of classroom studies and on-the-job reactor training in a plant and/or in facilities maintained by all the reactor manufacturers. Then an NRC examiner conducts a written and oral licensing test in the plant's control room.

The license, which requires retesting every year, is good only for the particular plant in which the operator is employed.

"Most reactor operators have a pretty routine existence; there's not much going on," the spokes-

man points out. To prepare the reactor-operator trainee for emergencies, he says, "computer simulators are used to run them through those sorts of problems."

Under a regulation issued after the Three Mile Island incident, the NRC says that the reactor operator must be backed up by a "shift technical adviser" in the control room. The adviser, a trained reactor operator himself, "provides perspective and looks at what's going on overall."