

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

February 21, 1983

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STATEMENT BY ROGER SEASONWEIN

I am Roger Seasonwein, president of Seasonwein Associates and publisher of the Seasonwein Poll.

I've been engaged in marketing research for almost 20 years working for such commercial clients as Exxon, Conoco, National Steel and the American Council of Life Insurance; voluntary organizations such as United Way of America and Freedom House; and, on a pro bono basis, various government agencies.

Additionally, I have written a number of articles and teach at New York University and the Nathan Mayhew Seminars in Massachusetts. One of the areas in which I have developed special expertise is what is known as communications research, including the measurement of the effectiveness of communications and the likelihood that plans and programs will be acted upon. My firm has conducted a number of published surveys and I have been the subject of articles in the New York Times Magazine, the Washington Post, the Christian Science Monitor and other publications.

Sponsorship of the Indian Point Survey

The Indian Point survey was conducted on behalf of the Community Relations Committee of the Westchester County Board of Legislators. This Committee is chaired by John Hand, a Republican. Both Republican and Democratic members of this Committee participated heavily in the design of the survey as did the office of former County Executive Alfred Del Bello.

The survey had two objectives. First, it measures attitudes toward the nuclear plants at Indian Point among all Westchester adults.

The second segment of the survey is a feasibility study, determining the effectiveness of the emergency evacuation plan that has been developed for these plants. While this feasibility study was primarily conducted among people living near the plants, one or two questions were also asked of persons living further away to determine whether their actions would impede the program in the ten-mile zone.

Methodology

The survey was conducted among a probability sample of 500 Westchester adults 18 years of age and over.

Some 400 of these interviews were conducted outside the ten-mile zone while the balance of 100 were with persons living within this zone.

Since 92% of Westchester residents live outside the ten-mile zone and only 80% of the interviews were conducted there, the data were weighted when results were computed for the entire county.

Interviews took an average of 40 minutes and were conducted by telephone using standard probability sampling techniques. Interviewing dates were December 2-8, 1982.

Summary of Results

Attitudes

The Indian Point nuclear plants are accepted by Westchester, albeit lukewarmly.

A 49-35 plurality accepts the plants. This vote remains essentially the same after the arguments on both sides of the question are heard.

Those inside the ten-mile zone are evenly divided, with about 45% in favor and 45% opposed. Outside the zone, there is 50%-34% acceptance.

The reason people are willing to accept the plants has to do with a willingness to trade off economic advantages for health risks.

The first thing to understand about this trade off is that Westchester residents, both inside and outside the ten-mile zone, reject the notion that the plants could explode. Thus they basically perceive them as presenting a pollution risk---not unlike a toxic chemical plant.

The primary economic benefits that are perceived are a reduction in electricity rates and a contribution by the plants to the overall economic fabric of the county. (Incidentally, residents reject the notion that the plants help reduce real estate taxes or that they significantly affect the consumption of foreign oil.)

Feasibility Survey

Insofar as the emergency plan is concerned, there is a mixed finding.

If the emergency is such that people are ordered to stay inside and close their doors and windows, a large proportion will comply.

On the other hand if evacuation is required, chaos could prevail since both inside and outside the ten-mile zone crucial elements of the plan would be ignored.

The tables referred to in this are attached to this testimony as an appendix.

WHETHER THE NUCLEAR PLANTS AT INDIAN POINT SHOULD BE KEPT OPERATING

	<u>Total</u> %	<u>Inside</u> <u>10 Mile Zone</u> %	<u>Outside</u> %
<u>Initial attitudes before arguments given on both sides:</u>			
Keep operating	49	44	50
Should shut down	35	45	34
Don't know	15	11	16
<u>Attitudes after arguments given on both sides:</u>			
Keep operating	52	47	53
Should shut down	39	47	39
Don't know	8	7	8

ARE THE NUCLEAR POWER PLANTS AT INDIAN POINT BASICALLY SAFE OR UNSAFE

	<u>Total</u>	<u>Inside</u> <u>10 Mile Zone</u>	<u>Outside</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Safe	45	45	45
Unsafe	41	47	41
Mixed emotions	0	1	0
Don't know	14	7	14

HOW LIKELY IS IT THAT RADIOACTIVE MATERIALS COULD BE RELEASED FROM THE
PLANTS AT INDIAN POINT AND HOW SERIOUS A HEALTH HAZARD WOULD THAT BE

	<u>Total</u>	<u>Inside</u> <u>10 Mile Zone</u>	<u>Outside</u>
	<u>%</u>	<u>%</u>	<u>%</u>
<u>Very likely</u>	<u>21</u>	<u>17</u>	<u>21</u>
<u>Somewhat likely</u>	<u>30</u>	<u>39</u>	<u>29</u>

Feel emission likely and the health hazard (in general) would be:

Serious	29	41	28
Somewhat serious	13	10	13
Not serious	2	5	2
Don't know	6	0	7

Feel emission likely and the health hazard (personally) would be:

Serious	26	42	24
Somewhat serious	18	10	19
Not serious	4	5	5
Don't know	2	0	2

THE MOST SERIOUS ACCIDENT THAT COULD HAPPEN WITH ANY NUCLEAR PLANT

	<u>Total</u> %	<u>Inside</u> <u>10 Mile Zone</u> %	<u>outside</u> %
Could explode	16	18	16
Meltdown	62	69	62
Don't know	21	13	22

HAS A NUCLEAR PLANT EVER EXPLODED IN THIS COUNTRY ELSEWHERE

	<u>Total</u>	<u>Inside</u> <u>10 Mile Zone</u>	<u>Outside</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Yes	4	1	5
No	11	13	11
Don't know	84	86	84

AWARE OF MEANING OF SIREN AND FEEL THEY SHOULD.....

Inside
10 Mile Zone
8

Aware

89

What should be done:

Stay indoors	66
Leave area	25
Pay no attention	6
Don't know	3

Base: Those who live within the "10 mile" zone.

WHETHER WOULD LEAVE AREA IF INSTRUCTED TO AND HOW WOULD DO IT

	<u>Inside 10 Mile Zone</u>
Would leave area	80
Would stay indoors	16
Would pay no attention	1
Don't know	3

Ways would leave the area:

Bus	3
Own car	82
Ride with friend or neighbor	6
Airplane	1
Don't know	8

Base: Those who live within the "10 mile" zone.

WHETHER KNOWS ABOUT A PREDESIGNATED ROAD ROUTE TO BE TAKEN IN AN EVACUATION
AND WHETHER WOULD TAKE IT

	<u>Inside</u> <u>10 Mile Zone</u>
Yes, there is a predesignated road route	31
No, don't know if there is a predesignated road route	69
<hr/>	
Yes, would take the predesignated road route	41
Would leave the best way know how	56
Don't know	3

Base: Those who live within the "10 mile" zone.

AUGUST, 1982

- And by what percent do you think electric rates would be increased if these two power plants were closed---would it be closest to 10%, 20%, 30%, 40%, 50%, or more?
- | | | | |
|--------------|-----------|------------|------------------|
| 10%.....15-1 | 30%.....3 | 50%.....5 | Don't know.....Y |
| 20%.....2 | 40%.....4 | More.....6 | |
- Overall, do you feel that the nuclear power plants at Indian Point are basically safe, or do you feel that they are basically unsafe?
- | | | |
|---------------|--------------|------------------|
| Safe.....16-1 | Unsafe.....2 | Don't know.....Y |
|---------------|--------------|------------------|
5. How likely do you think it is that radioactive materials could be released from one or both of the plants at Indian Point---very likely, somewhat likely, not too likely, or not at all likely?
- | | | |
|-----------------------------|--------------------------|----------------------|
| Very likely....17-1) | Not too likely.....3) | D.K....Y) SKIP TO 13 |
| Somewhat likely...2) ASK 11 | Not likely at all.....4) | SKIP TO 13 |
1. How serious a health hazard would be posed of if that happened---very serious, somewhat serious, not too serious or for people in Westchester not serious at all?
- | | | |
|-----------------------|------------------------|------------------|
| Very serious.....18-1 | Not too serious.....3 | Don't know.....Y |
| Somewhat serious...2 | Not serious at all...4 | |
2. And how serious a health hazard would there be for you personally and those living with you if radioactive materials were released by one or both the plants at Indian Point---very serious, somewhat serious, not too serious or not serious at all?
- | | | |
|-----------------------|------------------------|------------------|
| Very serious.....19-1 | Not too serious.....3 | Don't know.....Y |
| Somewhat serious....2 | Not serious at all...4 | |
3. Some people say that the most serious accident that could happen with any nuclear power plant is what is called a meltdown. Other people feel a nuclear power plant could explode. Is it your feeling that a nuclear plant could explode or do you feel that the most serious accident would be what is described as a meltdown?
- Could explode..20-1) ASK 14 Meltdown most serious...2) SKIP TO 15 Don't know..Y) SKIP TO 15
4. To your knowledge, has a nuclear power plant ever exploded in this country or elsewhere?
- | | | |
|--------------|----------|------------------|
| Yes.....21-1 | No.....2 | Don't know.....Y |
|--------------|----------|------------------|

AUGUST, 1982

22. The Nuclear Regulatory Commission requires the owners of nuclear plants to have an emergency plan. Con Edison and the New York State Power Authority, the owners of the two nuclear plants at Indian Point, have based their plan on the seriousness of an emergency. If just a small amount of radiation is released, they recommend that you and all others living within 10 miles of Indian Point remain indoors with all windows and doors shut. If the release of nuclear material in the air is more serious, they will advise you to leave the area. These instructions would be given to you over the radio and on television.

Suppose the instruction were to stay indoors and close all windows and doors. Would you be inclined to do this, or would you be inclined to pay no attention to the instructions and go on with what you were doing, or would you be inclined to leave the area? (IF DON'T KNOW OR EQUIVALENT:) We're only interested in your current impression. (REPEAT QUESTION)

Stay indoors.....30-1 Leave area.....3
Pay no attention....2 Don't know.....4/Y

3. Suppose the instruction were for you to leave the area. Would you be inclined to do this, or would you be inclined to pay no attention to the instructions and go on with what you were doing or would you be inclined to stay indoors and close all windows and doors? (IF DON'T KNOW OR EQUIVALENT:) We're only interested in your current impression. (REPEAT QUESTION)

Leave area.....31-1 Stay indoors....3
Pay no attention....2 Don't know.....Y

4. If there were an evacuation, would you use a bus to leave or your own car or would you try to get a ride with a friend or neighbor or would you try to get out some other way?

Bus.....32-1 Ride with friend or neighbor...3
Own car.....2 Don't know.....Y

5. Do you happen to know whether there is a predesignated road route for you to take in an evacuation?

Yes.....33-1 No.....2 Don't know...Y

6. If there is a predesignated road route, would you be inclined to take it or would you be inclined to leave the area the best way you know how?

Predesignated road route..1 Best way know how..2 Don't know...Y

INSTRUCTION: THOSE ASKED 15-31, SKIP TO 34

32. The Nuclear Regulatory Commission requires the owners of nuclear plants to have an emergency plan. Con Edison and the New York State Power Authority, the owners of the two nuclear plants at Indian Point, have based their plan on how close people live to the plants. For those like you who live further away than that, their plan advises you to remain where you are.

If there were an emission of radioactive materials that was serious enough for those living closer than 10 miles to be asked to leave their homes, what would you do? Would you be inclined to follow the plan and stay put or would you be inclined to go closer to the plant or would you be inclined to leave your home and get further away from the plant. (IF DON'T KNOW OR EQUIVALENT:) We're only interested in your current impression. (REPEAT QUESTION)

Stay put.....39-1

Get further away...3

Go closer.....2

Don't know.....4/Y

33. Do you feel that decisions related to the operation of the nuclear power plants at Indian Point should be made by Con Ed and the New York State Power Authority themselves, or by professionals brought in from outside who are trained in the nuclear energy field, or by your elected representatives, or by the public? (MAY MULTIPLE RECORD)

Con Ed and N.Y.S.P.A...40-1

Elected representatives...3

Professionals.....2

Public.....4

35. Now I'm going to read you some arguments on the other side. (READ X'D ITEM)
Do you feel the statement I just read you is basically true or basically not
true? (IF TRUE, OR DON'T KNOW:) Are you inclined to feel the statement we
are talking about is a strong or a weak argument for opening the nuclear
power plants at Indian Point?

START
WITH:

	True	Not True	DK	Strong	Weak	DK
Nuclear energy has been providing electricity to residents of New York State from the Indian Point site since 1962, when one of the nation's first nuclear electric plants began operating. The two plants currently operating at Indian Point provide a significant amount of the power needed by New Yorkers for jobs, for schools and most of the power for the Metropolitan Transportation Authority's commuter railroads and subways and for some 75 government agencies, including the street lighting, public housing, water filtration and other electrical needs of counties, villages and school systems.41-1	2	3		42-1	2	3
By using nuclear energy as its fuel, Indian Point makes unnecessary the burning of some 20 million barrels of imported oil each year. By substituting nuclear energy for imported oil, the two plants save consumers half a billion dollars a year in electric rates.....43-1	2	3		44-1	2	3
In nearly 20 years, the operation of the Indian Point plants has never caused an injury to a member of the public. Mechanical malfunctions have interrupted operations at times, and occasionally have caused small releases of radiation inside the containment building, but have never led to a significant release beyond the plant boundary45-1	2	3		46-1	2	3
From the beginning scientists and engineers have recognized the potential hazard of nuclear plants- the accidental release of radioactive materials- and designed the plants to prevent a large release from happening.....47-1	2	3		48-1	2	3
If the plants at Indian Point are closed the electricity rates in Westchester will go up at least 10% and perhaps as much as 20%.....49-1	2	3		50-1	2	3

- 35R. Now I'm going to read you some arguments on the other side. (READ X'D ITEM) Do you feel the statement I just read you is basically true or basically not true? (IF TRUE, OR DON'T KNOW:) Are you inclined to feel the statement we are talking about is a strong or a weak argument for keeping the nuclear power plants at Indian Point closed?

	True	Not True	DK	Strong	Weak	DK
It is possible that Indian Point may have been needed in 1962 when the first nuclear plant began running there but the two nuclear plants are increasingly unneeded now. In large part this is because the amount of electricity used by the average Westchester residents has gone down a lot and continues to decline. Talk that the Indian Point plants are needed to provide electricity that protects jobs is just a scare tactic.....	51-1	2	3	52-1	2	3
Indian Point does almost nothing to reduce the use of foreign oil in this area. While those who favor the plants talk about saving 20 million barrels of oil a year by having these atomic plants, they don't mention that this amount of oil is not even 10% of the foreign oil used around here.....	53-1	2	3	54-1	2	3
The operators of Indian Point claim that no one has been injured by it in 20 years. This probably means that our luck is about to run out since there have been many times when each of the two plants there have had something wrong and one of the plants was just shut down recently because it was said to be unsafe.....	55-1	2	3	56-1	2	3
Scientists still have not solved the problem of how to safely store, on a long-term basis, the radioactive wastes produced by nuclear power plants and the related problem of where to safely dispose of these nuclear wastes. Westchester has accumulated a stockpile of this nuclear waste because there is no adequate plan for its disposal.....	57-1	2	3	58-1	2	3
Indian Point is located in the most populated area of any nuclear power plant in the country. If an evacuation were necessary for the area surrounding the Indian Point Plant, such an evacuation would be impossible in the light of the numbers of people to be moved, the existing road network and the lack of protective equipment.....	59-1	2	3	60-1	2	3

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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CHARLES AWALT	on Behalf of Parents Concerned About Indian Point and WESPAC
KAI ERICKSON	on Behalf of Parents Concerned About Indian Point and UCS/NYPIRG
SONNY HALL	on Behalf of Parents Concerned About Indian Point and UCS/NYPIRG
JOHN RODEN	on Behalf of Parents Concerned About Indian Point
ALMA CORMICAN	on Behalf of Parents Concerned About Indian Point
JAMES MURPHY	on Behalf of UCS/NYPIRG
RICHARD ALTSCHULER	on Behalf of UCS/NYPIRG and Rockland Citizens for Safe Energy