

Committee To End Radiological Hazards

Box 148, 150 Christopher Street
New York 14, New York

Mary Hays Weik

Secretary

GR 7-5935

December 29, 1969

Public Proceedings Branch
Mr. W. B. McCool, Secretary
U.S. Atomic Energy Commission
Washington, D. C. 20545

Re: Consolidated Edison Co. of N Y
Indian Point Nuclear Unit # 3

Docket No: 50-286

Dear Mr. McCool:

In the first place, let me thank you for your courtesy in considering my protest on the Indian Point ruling, as a citizen intervenor at the Hearing, even though you had "some doubt as to whether (it) properly constitutes an exception under our Rules of Practise." Your tolerance on this point helps to convince me that the Commission truly wishes to include the tax-paying citizen in discussions of this important issue.

I have seen a copy of the statement concerning the Montrose incident at the "Senate hearings before the Appropriations Committee," to which you refer; and was surprised to see that the U.S. Atomic Energy Commission, with all its wealth of research documentation and talent, had seen fit to turn to a state agency - the New York State Department of Health - for "investigation" of this sensitive issue.

To say that the material on the Montrose cancer deaths presented by the N.Y. State Health statisticians at the Senate Appropriations hearing was not only inaccurate but grossly irrelevant, is understatement indeed. Such an attitude is of course not typical of many American states, some of which take pride in protecting their citizens. But in this statement by the New York State agency, not a figure or mortality classification is correct or bears on the issue - which is the release of radioactive effluents at Indian Point during normal and abnormal functioning.

This misleading report is of course no surprise to anyone who has seen other N.Y. State Health Department statements of this type - issued solely for Public Relations purposes and deliberately planned to confuse and deceive those who might be stupid enough to believe their distorted figures: a fact which suggests that the N.Y. State Health Department itself deserves a thorough investigation. That is why I called for the appearance as a witness at the Indian Point hearing of the N.Y.S. Health Department's head, Dr. Hollis Ingraham, Health Commissioner. As you know, he refused to appear, sending instead staff personnel unacceptable to me. The \$50 I sent Dr. Ingraham for ^{his} travel expenses to the hearing has never been returned to me.

As an example of the veracity of New York State Health Department reports in this field, I attach four items:

- 1) A page from a 1965 N.Y.S. Health Dept. "Radioactivity Bulletin" showing high Beta levels at Peekskill and Ossining, adjacent to the Indian Pt. plant.
- 2) An excerpt from a report I submitted to the AEC in 1966, in a Limited Appearance at the Indian Point II hearing, which thoroughly refuted, by official U.S. Government records, the electric company's fraudulent claim that high Beta levels in Hudson River water near Indian Point were caused

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(cont'd)

entirely by "salt infiltration" from the Atlantic Ocean.

3) Figures from U.S. Geological Survey records showing actual background radioactivity in Hudson River water, at Peekskill and at Tarrytown 15 miles below, from salt-water tides.

4) Cover statement on the last, November, 1969 issue of the same N.Y. State Health Dept. "Radioactivity Bulletin," repeating the fraudulent claim disproved in 1966, as a reason for current high Beta rates in the Peekskill-Ossining area!

The siting of atomic plants, without regard to their effects on neighboring populations, is far from a minor technical issue. It is in fact as important as anything facing the citizen and tax-payer today. The responsibility for actions and decisions taken casually and hastily today, under various political and industry pressures, cannot be transferred to committees and government agencies when later official investigations disclose their serious errors. The men who now staff the state and federal agencies making the final decisions on atomic siting are going to be held personally responsible, sooner or later, for their acts; and the accounting may be as painful as the results of their occasional negligence.

I do not expect you to reopen the Indian Point case and enter the material I am enclosing, which the Indian Point Hearing Board, on various technicalities, chose to refuse. You would be wise to put it into the Commission's information files for future reference. It comprises the following material I presented to the Board last Spring:

- 1) A local map showing location of cancer deaths in a sharply defined area of the village of Montrose, downwind to the Indian Point atomic plant. (Montrose population, by current local count, is now reduced, for various reasons, to about 1800)
- 2) List of the Montrose cancer victims, with incidental facts.
- 3) Copy of the original documented list of Montrose cancer deaths, showing residence & date of death, with physician's name & his diagnosis of cause of death, collected as shown and endorsed by clerks in charge of the various death records: at the Town of Cortlandt in which the village of Montrose is located; at the Westchester Health Dept. in White Plains; and at New York City (where one of the Montrose cancer victims died at Doctors Hospital in upper Manhattan).
- 4) Copy of diagram in US Gov't pub'n showing path of effluent plume from power plant.

Those who think the Montrose incident can be lightly dismissed, are sadly mistaken. The people of Montrose are not forgetting it. Every new case of cancer there will add to their fears and to their resentment of the presence of the Indian Point plant nearby. It is not the first time that a large atomic plant has been sited close to a sizable population, as it is in Westchester County. It is the first time that an abnormal number of cancer deaths has appeared in a sharply defined area near such a site, has been noted by the local population, and its facts set down on record for further study.

I am a firm believer in the value of the federal principle of government, which requires the judgment of the entire body of American citizens on actions by individual states which can be detrimental to all. I urge you to put all the energy and talent of the U.S. Atomic Energy Commission's scientific research division to work, in cooperation with other federal agencies such as the U.S. Public Health Service, on an open & exhaustive study of the health situation at Montrose - not a transient Public Relations project, but the kind of honest, unsparing, scrupulous, organized work that you would put into a thorough study of a Fast Breeder Reactor - which New York State is now so ready to launch, in its present experimental and unsafe form, on a small upstate community. The Montrose case is equally important. It may determine the future of the Commission.

Sincerely,
Mary Hays Weik



State of New York
Department of Health
Albany, New York

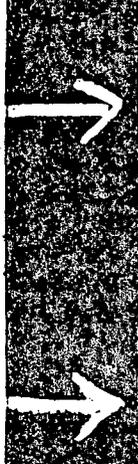
February 16, 1965

Gross Beta Levels in Water (cont'd.)
(New York State Department of Health Radiation Surveillance Network)

Station	Date	Result pc/l	Remarks
Clenmont	12/14-12/18/64	6	Hudson River
	1/4/65-Date Collected	7	Hudson River
Haverstraw	12/9/64	2	Witchworth V. Reservoir
Highland Falls	12/15/64	5	Bog Meadow Brook
Lansing	12/11/64	2	Airport Well
	12/11/64	3	La Barr Well
	12/11/64	3	Bush Well
	12/11/64	1	Shively Well
Lansing & Dryden	12/11/64	1	Research Park Well
Ossining (Sing Sing)	11/6-11/12/64	89	Hudson River
	11/13-11/19/64	50	Hudson River
	11/20-11/24/64	57	Hudson River
	11/26-12/3/64	60	Hudson River
	12/4-12/10/64	74	Hudson River
	12/11-12/17/64	56	Hudson River
	12/18-12/23/64	57	Hudson River
Ossining	12/15/64	7	Indian Brook Reservoir
Oswego	12/8/64	7	Lake Ontario
	12/21/64	5	Lake Ontario
	1/4/65	5	Lake Ontario
Peekskill (Standard Brands)	11/6-11/12/64	48	Hudson River
	11/13-11/19/64	88	Hudson River
	11/20-11/25/64	45	Hudson River
	11/26-12/3/64	46	Hudson River
	12/11-12/17/64	30	Hudson River
	12/18-12/23/64	58	Hudson River
Peekskill	12/15/64	7	Camp Field WS
Ramapo (t)	11/9/64	2	Hillburn WS
Hillburn (v)			
Rome	12/8-12/21/64	6	Fish Creek
	12/22/64-1/4/65	6	Fish Creek
Schenectady	12/8-date collected	5	Mohawk River
	12/15-date collected	7	Mohawk River
	12/22-date collected	5	Mohawk River
	12/28-date collected	7	Mohawk River
Stony Point	11/9/64	3	Iona Island
Watertown	12/8-date collected	6	Hudson River
	12/21-date collected	3	Hudson River
	12/28-date collected	5	Hudson River
	1/4/65-date collected	6	Hudson River
Watertown	11/23-12/5/64	7	Black River
	12/7-12/12/64	7	Black River
Watervliet	12/7-12/21/64	5	French Mill Reservoir
	12/23-1/4/65	5	French Mill Reservoir
Yorktown	12/15/64	6	Groton Reservoir
Average		12.1	

*

(Reproduction of page in Feb. 16/65 issue of New York State Health Dept. monthly "Radioactivity Survey Bulletin" showing High Pollution of Hudson River water by Beta Activity (largely Strontium 90) at OSSINING and PEKSKILL, adjacent to Consolidated Edison's 257-megawatt "Indian Point" nuclear power plant - as compared to figures at other N. Y. State monitoring stations listed in first column's title - February 1964, the OSSINING station registered 109 pc/l - picocuries per liter of water.)



(Excerpt from THE TIME-BOMB INDIAN POINT: a report on the Buchanan, N.Y. atomic power plant presented by Mary Hays Weik in a Limited Appearance at the 1966 AEC Hearing on a Construction License for Indian Point Generating Unit II):

The effects of the Indian Point plant on the Hudson's water are clearly shown in the monthly Radioactivity Bulletins of the N Y State Health Department - 11 of whose 26 water monitoring stations are devoted solely to checking the effects of the Indian Point reactor. These Bulletins show Beta activity in Hudson River water at Peekskill and Ossining, just above and below the Indian Point plant, consistently many times higher, month after month, than at other N Y State water stations.

In Canada in November/64 a public uproar was raised when "dangerous levels" of radioactivity of 10 to 14 picocuries per liter (pcl) were discovered in the drinking water supply of the uranium mining community of Elliot Lake, Ontario. Canada, like many other countries of the world, recognizes the "International Commission On Radiological Protection's" safety standards of 10 pcl for the general public.

Yet in New York City, no public authority has raised its voice in protest when radioactive pollution of Hudson River water at Ossining and Peekskill, near the Indian Point plant, is recorded month after month in NY State Health Dept. bulletins at 50, 60, 80, sometimes over 100 pcl! (See table on following page)

When attention was called to these figures in a public statement by this Committee, a Consolidated Edison spokesman issued a blanket denial to the NY Times (Nov. 17/65): ("No Atomic Peril Found In the Hudson"), crediting the high Beta levels near the Indian Point plant to "harmless" background radioactivity - Potassium K-40 in the "saline . . . infiltration" from the Atlantic Ocean at that point. Such "natural" radioactivity, he asserted, was really "beneficial" and added zest to life - as when "a person salts a steak!"

Soon after, an idea man at a local Radio station, WMCA, issued a 22-page report on the basis of the Con-Ed man's statement on the alleged salinity of the Hudson at this point, claiming that since "harmless" Beta activity in sea water runs 360 pcl, "at Indian Point there is enough (infiltration of) sea water to account for the 50 to 100 pcl (recorded in NY State Radioactivity Bulletins)."

The only trouble was, his (and Con-Ed's) salinity figures did not agree with the facts. The skepticism of a scientist at the Wood's Hole (Mass.) Oceanographic Institution led to a local check. It turned out that the "salinity" claimed for the Peekskill area by the utility and radio station was almost 8 times the actual figure for Peekskill reported in U.S. Geological Surveys of this area. These surveys indicated that salinity-caused background activity was responsible for only 12.5 pcl in the Hudson River water at Peekskill (Standard Brands station), where it had been monitored at 50 to more than 100. The records of the N.Y. State Radioactivity Bulletin show that in Dec/65 (when the Indian Point reactor was shut down for a fuel changeover) Peekskill Beta levels dropped from their usual high level to 3 pcl. The evidence therefore points to the Indian Point reactor as an important factor in the Peekskill area's high radioactivity rate.

NATURAL BACKGROUND RADIATION IN HUDSON RIVER WATER

FROM POTASSIUM (K-40) IN OCEAN TIDES *

(Distance upstream from Tarrytown to Peekskill: about 15 miles)

	1 9 6 1		1 9 6 2	
	Salinity (parts per 1000)	Picocuries per liter	Salinity (parts per 1000)	Picocuries per liter
TARRYTOWN	3.7	36	4.8	46.6
PEEKSKILL (Standard Brands)	1.3	12.6	1.6	15.5

(Figures calculated from U S Dept. of Interior Geological Survey
Salinity Analyses and Investigations 1961-1962 (Unpublished Records)

* Radioactive (K-40) content of Atlantic Ocean: 340 picocuries per liter.
Dilution is progressive as tides move upstream.

Figures shown above are for two years:
1961 - a year of normal rainfall, and
1962 - a year of unusual drouth, when
the salt-water tides penetrated
further upstream

(Mary Hays Weik - 1969)

State of New York
Department of Health
Albany, New York

TO: THE COMMISSIONER
DEPUTY, ASSOCIATE, ASSISTANT, COUNTY AND CITY HEALTH COMMISSIONERS
REGIONAL HEALTH DIRECTORS AND DISTRICT HEALTH OFFICERS
DIRECTORS OF BUREAUS, STAFF OFFICES, HOSPITALS AND APPROVED LABORATORIES

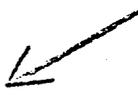
FROM: Doctor Thompson

SUBJECT: Radioactivity in Air, Milk and Water For July - September 1969

This is the third quarterly report of 1969 on radioactivity levels in environmental samples taken throughout New York State.

The gross beta radioactivity levels in air were low and generally the same as the previous reporting period. Two new air sampling stations were started in Oswego and Wayne Counties near nuclear power plants and the results from these new stations were not significantly different from the other state air sampling stations.

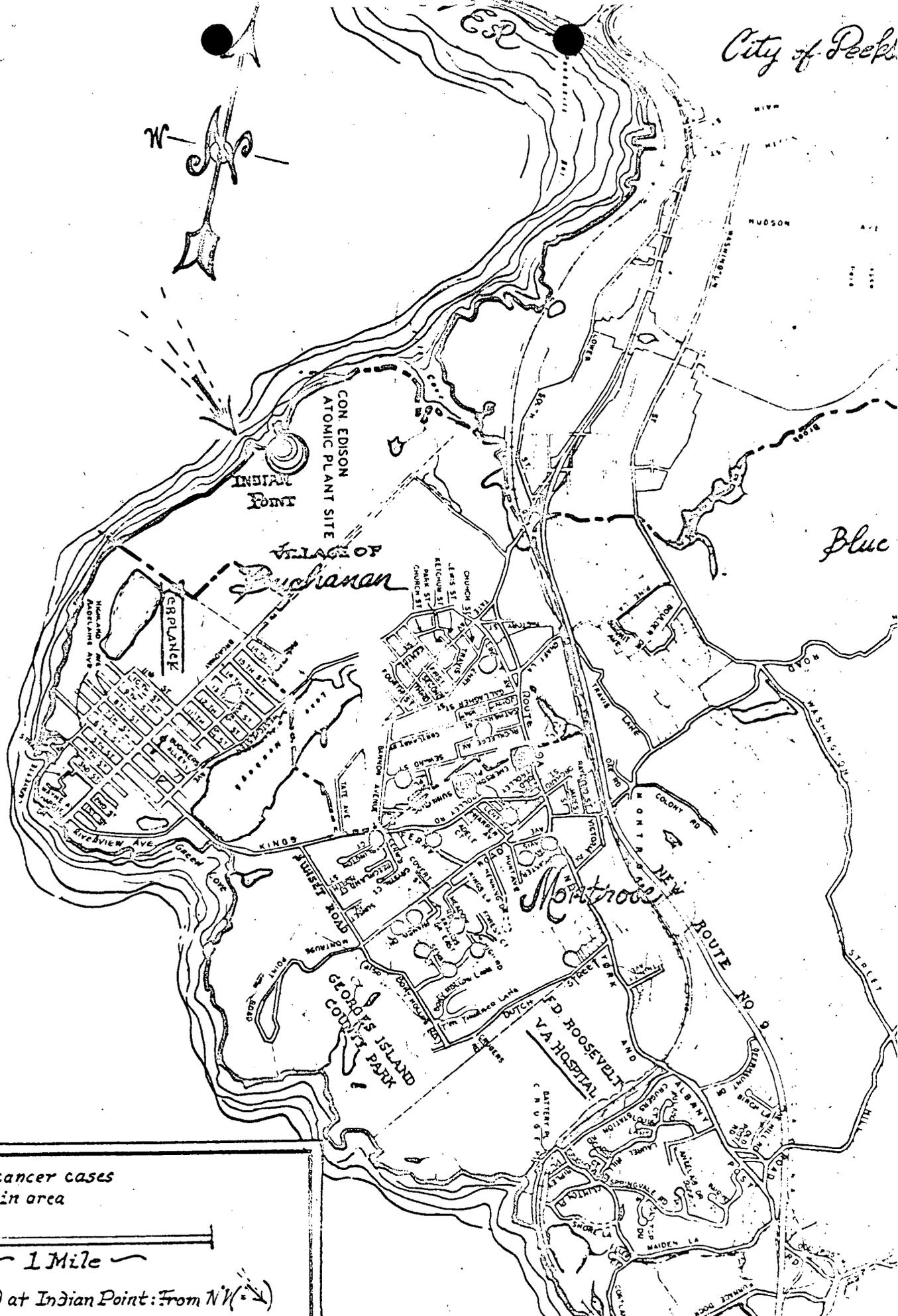
Results from milk samples remained low to undetectable throughout the state. Three more farms in Wayne County were added to the network for environmental sampling program around the Rochester Gas & Electric nuclear power plant.

Radioactivity levels in water remained low throughout the State with the exception of Buttermilk and Cattaraugus Creeks downstream from Nuclear Fuel Services. A new water sampling station was added, the Ontario filter plant in Wayne County. During this report period, strontium 90 analyses were started on samples of the lower Hudson River above and below the Consolidated Edison discharge (Standard Brands and Sing Sing). The higher gross beta level for these samples was caused by the presence of salt water and natural potassium 40. There were no detectable fission products or corrosion products in the water samples at these sampling stations. 

Some water samples were collected from Cattaraugus Creek at Felton Bridge, site O32, instead of the Springville Dam, site O42, due to the annual cleaning operation to flush out silt from behind the dam. A grab sample upstream from the dam at Felton Bridge was collected on September 17, 1969 and was 915 pCi/l gross beta which was higher than 600 pCi/l considered to be the allowable limit for gross beta. A specific isotopic analysis was made on the sample and the concentrations of major isotopes present were determined. The sum of the ratios, of the actual concentration to the allowable concentration for each specific isotope, was 0.37. These values and calculations are given in this report at the end of the water

⊕ DOCUMENTS OFFERED TO THE AEC HEARING BOARD
BY MARY HAYS WEIK, CITIZEN INTERVENOR, AT THE
SPRING/69 HEARING ON INDIAN POINT NUCLEAR GEN-
ERATING UNIT III, AND REFUSED BY THE BOARD ON
TECHNICAL GROUNDS (Doc.No.50-286)

City of Peekskill



Blue

Northbrook

Village of Buchanan

CON EDISON
ATOMIC PLANT SITE

INDIAN
POINT

Location of cancer cases

Schools in area

Scale:

1 Mile

prevailing Wind at Indian Point: From NW

(+ 3 now Cancer deaths reported later - including 2 Brain Cancer Doctor or Hospital

to of Death	N A M E	A d d r e s s	Cause of Death	Doctor or Hospital
7/23/64	** Mrs. Margaret Matthews	Lancaster Ave., Montrose	Leukemia	Grasslands Hosp., Valhalla
('63?)	*** Mrs. Ralph Williams	Seward Court, "	(Cancer)	(Dr. & place of death not kno
(?)	*** Mrs. Armida Larocca	High Road, "	(Cancer)	(Dr. Huntington)
8/ 5/64	* Mrs. Mary Grundrich	Frances Drive, "	Breast & Liver Cancer	Dr. George Grunberger
(1964?)	*** Mrs. Eileen Ryan	29 Meadow Road, "	(Cancer)	(Dr. & place of death not kno
9/ 6/64	** Mrs. Adelaide Heady	Kings Ferry Road, "	Brain Cancer	Dr. Eisler
(?)	*** Vincent Verdeschi	209 Rockledge Ave, Buchanan	(Leukemia)	(Dr. & place of death not kno
(1965?)	*** Rita Carrancio	14th Street, Verplanck	(Cancer)	(Dr. & place of death not kno
4/30/67	* Robert Hilliard	Lent Avenue, Montrose	Digest. & Brain Cancer	Dr. D. M. Menache
8/6/67	** Mrs. Helen Krejcik	E. Frances Drive, "	Brain Cancer	Rosary Hill Hosp, Hawthor
9/5/67	‡ Mrs. Margaret Hooley	Kings Ferry Road, "	(Loc. testy: Breast Canc.) NYC rec. cannot state cause	Dr. J. Baquero, Doctor's Hsp, NY
9/14/67	* Mrs. Adair Travis	High Road, "	Digestive Cancer	Dr. Harold Stevelman
2/14/68	* Harry Chester	Seward Avenue, Buchanan	Lung Cancer	Dr. Francis A. Agrest
(1968)	*** Catherine Mackey	Lindsey Avenue, "	(Brain Cancer)	(Dr. & place of death not kno
5/25/68	** Mrs. Mary Canestra	19 Dutch Street, Montrose	Digestive Cancer	Dr. A. C. Semisa, Phelps Mem, Hos Tarrytown
0/8/68	* Mrs. Marion Coulter	86 Albany Post Road, "	Breast Cancer	Dr. Henry L. Messutta
2/1/69	** Mrs. Veronica Towers	Meadow Road, "	Breast Cancer	Dr. Wren, Phelps Mem, Hosp, Ta

* From Town of Cortlandt records, Croton, N.Y.

** From Westchester Co. Health Dept. records, White Plains, N.Y.

*** Testimony of Montrose, NY citizens (in Parenthesis)

‡ From New York City Health Dept. records,

COLLECTED BY: Mary Hays Weik of New York City

with the help of a Montrose, NY associate

Date: April 10 - 16, 1969

LIVING: 4 known Cancer Remission cases are in this same area, 3 of them in the High Rd-Frances Dr. section of Montro

Date of Death	N A M E	A d d r e s s	Cause of Death	Doctor's Name
(163?)	Williams, Mrs. Ralph	Seward Court, Montrose	(Cancer)	Dr. & place of death not k
3/5/64	Grundrich, Mrs. Mary	Francis Drive, "	Hepatic Coma Metastasis of Liver From Carcinoma of Breast	George C. Ambrogio
(?)	Larocca, Mrs. Lawrence (Armida)	High Road, "	(Cancer)	(Dr. Huntington)
(164?)	Ryan, Mrs. C. Russell (Billie)	29 Meadow Road, "	(Cancer)	(Dr. & place of death not k)
7/14/67	Travis Mrs. Adair	High Road "	Multiple Pulmonary Emboli Pulvic Thromboembolism Glenoid Carcinoma of the Colon	Walter Steed
8-6-69	Towers, Mrs. Veronica	Meadow Road "	Bilateral Adenocarcinoma of Breast	Philip Memorial H Dr. Walter Tari
8-6-69	Krejcik, Mrs. Helen	E. Francis Drive "	Cystic Glioma of Right Frontal Lobe (Brain)	Hawt Rosary Hill Hospit
4/30/69	Hilliard, Robert	Lent Avenue "	CA of Cecum with Metastatic to Liver & Brain	D.M. Marache
4/5/67	Woley, Mrs. Margaret	Kings Ferry Road Chestnut Road	(By loc. test; Breast Cancer) NYC rec. do not state cause	Dr. J. BAQUERO Doct. Hosp
9-5-67	Heady, Mrs. Adelaide	Kings Ferry Road "	CARCINOMA OF BRAIN	DR. EISLER
5-25-68	Canestra, Mrs. Mary	19 Dutch Street "	METASTATIC ADENOCARCINOMA OF LIVER, PROBABLE PRIMARY SITE - PANCREAS	PHILIPS MEMORIAL H DR. A. C. SEMERARI Tari
10/9/67	Coulter, Mrs. Marion	86 Albany Post Road "	CA of Breast	Henry L. Messutt
2/14/68	Chester, Harry	Seward Ave (Buchanan)	ADENOCARCINOMA Metastatic (Brain/Head)	FRANCIS A. AGRESTI
(68)	Mackay, Catherine	Lindsay Ave "	(Brain Cancer)	(Dr. & place of death not
65	Suzanne, Phyllis	Henry St. "	CARCINOMA	Andreas J. Calog, M.D.
(65)	Carranca, Rich	14 th St. , Woodlark	(Cancer)	(Dr. & place of death not
(?)	Vodzsch, Vincent	209 Rockledge Dr, Bellerose	(Leukemia)	(Dr. & place of death not Val
7-23-69	Matthews, Mrs. Bernard (Catherine)	Lancaster Ave. (Meadow St)	MYELOID LEUKEMIA	Cross Street Hospital
Town Clerk's Office, Town of Cortlandt, Croton, N.Y. R. 222, Westchester Health Dept., Co. Office Bldg., White Plains, NY			COLLECTED BY: Mary Hays Walk of New York City	Walter H. W.
From NYC Health Dept. records, 125 Worth St., NYC			with the help of a Montrose, NY associate	
			Date: April 10-16, 1969	
(Words in parenthesis: Testimony of Montrose citizens)			LIVING: 4 known Cancer Remission cases are in this same area, 3 of them in the Rd. - Francis Dr. section of Montrose. Other, arrested cases are also in this arc	

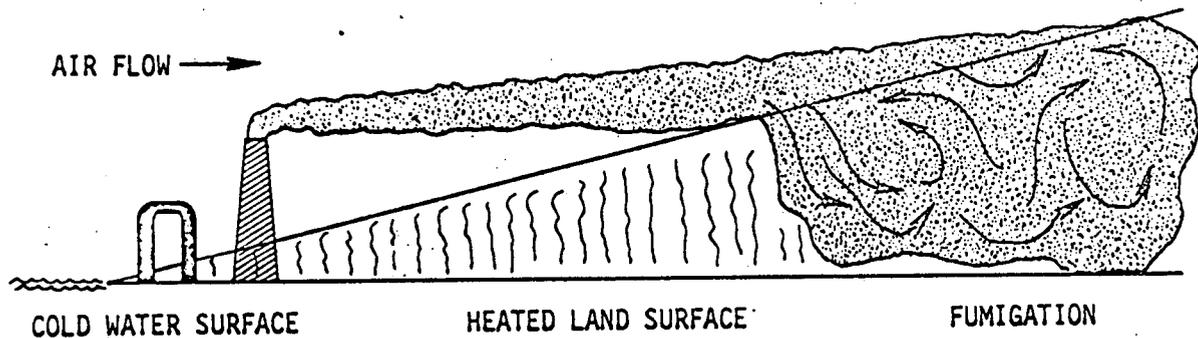
METEOROLOGICAL FACTORS

Considerable research has been carried out in the past 5 years involving atmospheric diffusion at or near land-water boundaries. These include studies at the Big Rock Point, Humboldt Bay, and Millstone Point reactor sites. It was found that a stack effluent at these sites with an onshore trajectory usually started out as a very stable plume during the daytime, but at a distance of from one-half to 2 miles was very rapidly dispersed towards the ground. . .

Bodies of water, such as lakes or the ocean, also may affect stack plume behavior. Accord-

ing to Van der Hoven (43), overland atmospheric diffusion is three times more rapid than over-water diffusion, on the average, when the water is colder than the air temperatures over land. An initial over-water flow that becomes an onshore flow as the result of a site location on an embayment or a trajectory reversal would be expected to have a slower diffusion rate depending on the length of the over-water trajectory and the difference between the water and land temperatures. The effect would be felt primarily in the first half to 3 miles after reentry onshore. . .

(The Montrose, N.Y. area where the incidence of cancer deaths was found is located 1 to 1-3/4 miles downwind from the riverside Indian Point nuclear power plant - directly under the descending cloud of radioactive gases pictured below.)



* FIGURE 22.—Turbulent mixing layer—resultant fumigation.

* From the Appendix on "Meteorology and Plant Sites" (p. 126) in Considerations Affecting Steam Power Plant Site Selection - a report sponsored by the Energy Policy Staff of the U.S. Science and Technology Office, with the cooperation of the U.S. Public Health Service, the Dept. of the Interior, the Atomic Energy Comm'n, etc. (Feb/69, Washington, D.C.).

