JOHN E. SANDERS, PH.D., D. SC. (HON.)
GEOLOGIST

36668 5C

RESIDENCE:
33 SHERMAN AVENUE
DOBBS FERRY, N. Y. 10522
(914) 693-2950

30 August 1989

My name is John E. Sanders.

I live at 33 Sherman Avenue, Dobbs Ferry, N. Y., 10522.

I am Chairman of the Hudson River PCB Settlement Advisory Committee, which was established in September 1976 as part of the terms of the Settlement Agreement between NYS DEC and GE over the matter of the PCB pollution of the upper Hudson River. The Committee's charge was as follows:

"The Commissioner of of Environmental Conservation (Commissioner) will establish an advisory committee consisting of independent experts, governmental, and private interests which will, at regular meetings, review and make public recommendations to the Commissioner concerning the scope, content, programs and results of the programs, studies and expenditures for which provision is made in paragraph 3(b).....The advisory committee will continue to function throughout the comprehensive program concerning PCBs and related environmental concerns."

This Committee held its organizational meeting on 26 October 1976. I was elected to be Vice Chairman in November 1976 and became Chairman in February 1977. That the Committee is continuing to "function throughout the comprehensive program concerning PCBs" is evident from the fact that its 128th meeting was held on 23 August 1989.

Unlike the representatives of GE, US EPA, and NYS DEC, I have not spent the afternoon of 29 August 1989 at GE rehearsing my lines for Tuesday evening's "performance." Rather, I have spent the last year preparing a comprehensive summary of all aspects of the PCB pollution of the upper Hudson River. The paper I have written is entitled: "PCB pollution of the upper Hudson River: from environmental disaster to environmental gridlock." It will be published in the next issue of the journal Northeastern Environmental Science.

(I wrote much of this before the hearing on Tuesday evening, 29 August 1989, but have modified it extensively afterward. Please discard the earlier version.)

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ii. What is the situation of the Na-bentonite inside with respect to cation-exchange reactions? Would the hydrogen of water, for example, exchange with the sodium, and thus change the physical properties of the bentonite?

(II) REMARKS ABOUT US EPA's R.O.D. OF 25 SEPTEMBER 1984.

EPA's Record of Decision, was signed and dated by Lee M. Thomas, Assistant Administrator, Office of Solid Waste and Emergency Response (and subsequently, EPA Administrator). Mr. Thomas wrote the date in numbers: 9/25/84. His nine can easily be taken for a seven. Indeed, I have been deceived by this and only on 23 August 1989 did Dr. Mark Brown of NYS DEC prove to me that the correct date is 25 September 1984, not 25 July 1984, as I had supposed. The significance of my error on the date will become apparent after I have reviewed the R.O.D.

In the following sections, I: (A) review the R.O.D., (B) demonstrate the fundamentally illegal basis for its conclusions about the lack of human-health aspects of the PCBs in Hudson River fish, and (C) show that the information on fate and transport of PCBs in the Hudson River, which was lacking in 1984 and thus inhibited EPA from making a final determination, is now available and thus no further excuses can be tolerated for not ending forthwith the "interim period of evaluation."

(A) Review of US EPA's R.O.D.:

Under the heading of Enforcement, this ROD states:

> "On October 27, 1983, EPA issued a Notice Letter to G. E. as a responsible and liable party. This letter notified G. E. of EPA's intentions to conduct a predesign sampling program and implement the remedial alternatives unless the company agreed to do so itself.
>
> "G. E. responded to this letter by calling EPA's notice premature and unjustified. First, G. E. objected to the fact that EPA issued a a notice letter for a site that is not on the NPL; and second, the company did not recognize a threat caused by the site to human health or the environment.
>
> "EPA has responded to G.E.'s letter by stating that remedial planning (sic) activities can be undertaken for a site on the proposed list. EPA may issue an order to the company for remedial design and clean-up. EPA also discovered that the Niagara Mohawk (sic) Power Corporation may also be a site owner and responsible party. A notice letter was issued on

"The lack of sufficient data to establish the fate and transport of PCBs in the Hudson River prevents the Agency from making a final determination of no-action (sic)."

But, for various reasons, US EPA has recommended the no-action alternative at this time. However:

"This decision may be reassessed in the future if, during the interim evaluation period, the reliability and applicability of in-situ or other treatment methods is demonstrated, or if techniques for dredging of contaminated sediment from an environment such as this one are further developed."

Finally, US EPA noted that the problem between their interim decision about the remnant deposits and TSCA regulations:

"Full consistency with these TSCA standards is not being achieved because in-place containment is intended as an interim remedy to address the direct contact and volatilization threat posed by the sites. The remedy is not intended to eliminate the low levels of release of PCBs into the Hudson River."

I draw your particular attention to the phrase that

"the average level of contamination of Hudson River fish has declined below the FDA limit of 5 ppm...."

(B) Fundamental illegality of the 1984 R.O.D.:

At the time this EPA ROD was signed, the statement quoted above about the FDA limit of 5 ppm is an outrageous falsehood. On 20 August 1984, the FDA had lowered its action level on PCBs in fish from 5 ppm to 2 ppm. The proposed FDA change from 5 to 2 ppm and its effective date of change were published in the Federal Register in May 1984 (v. 49, no. 100, p. 21514-21520 by M. Novitch).

For five years, I have been "excusing" EPA as pulling a fast shuffle to get their ROD published on 7/25/84, a month ahead of FDA's lowering of the action level for PCBs in fish from 5 ppm to 2 ppm. Last Wednesday, 23 August 1989, Dr. Mark Brown of DEC demonstrated to me that the correct date of EPA's ROD is 9/25/84. Therefore, how can EPA justify their position that the 4 ppm average figure for striped bass (see graph) does not constitute a public-health hazard, when it is twice the FDA action level? I maintain that this EPA position is a gross insult to the people of downstate New York. Moreover, it is an enormous black mark on the public credibility of the Agency.

(6) the quantity of PCBs exported to the estuary has been declining, but is still governed by variable water discharge (which has been lower during the 1980s than it was during the 1970s);

(7) in most PCB hot spots, the highest values lie not at the sediment/water interface but at variable depths beneath this interface. [The origin of this relationship is not known with certainty, but because of (5), it cannot be ascribed to 'covering by clean sediments brought down from upriver.' Farther along, I make the case for an origin by small-flood reworking of the large-flood deposits of 1974 and 1976.]

(8) Most of the PCBs in the subsurface hot spots have been out of circulation since the PCB-contaminated sediments were emplaced in the mid 1970s. In other words, these subsurface PCBs are not contributing directly to the ongoing PCB transport from upper river to the estuary. [Accordingly, a fundamental decision needs to be faced about PCB objectives and tasks. If the objective is to reduce the immediate, ongoing transport of PCBs to the estuary, then one should dredge everything but the hot spots. If the goal is to prevent another catastrophic downriver surge of PCB-contaminated sediments at some time in the future (an event projected to accompany the next major flood), then one should dredge the hot spots. The first option is a short-range proposition; it deals with putting the finishing touches on the waning effects of the mid-1970s catastrophic PCB release. It does nothing to forestall the explosion of the PCB 'time bomb.' The second option is in the category of a long-range venture. It deals with the ticking PCB 'time bomb' and aims to prevent

water containing dissolved PCBs has yielded chromatograms identical to those GE investigators claim are created only by anaerobic bacteria. This result, plus the results of experiments carried out by personnel from the NYS DOH, which show the great importance of temperature on the rates of reactions by anaerobic bacteria, cast grave doubt on the notion that anaerobic bacteria are capable of "biodegrading" significant amounts of PCBs in the buried hot spots.

CURRENT STATUS OF THE UPPER HUDSON RIVER PCB-POLLUTION PROBLEM

"The current status of the upper Hudson River PCB-pollution problem can be stated simply: 'Old Man River' just keeps rolling along, and in so doing, continues to transport PCBs downriver at a rate of at least 4 kg per day (figure based on Brian Bush measurements of July 1989 and presented to the 127th meeting of the Advisory Committee). Many people continue to believe that nature is solving the problem of PCB pollution in the upper Hudson River; that the river is 'cleaning itself' (by depositing 'clean' sediments on top of PCB-contaminated sediments and/or by bacterial 'biodegradation' of the PCBs buried in the hot spots) and that nature's wonders should be allowed to continue without interruption. Residents of Washington County continue to be opposed to any plan to dredge PCB-contaminated sediments from the Thompson Island Pool (or anywhere else in the upper river) and to encapsulate them within the Town of Fort Edward. NYS DEC is rescoping its plans for dealing with the PCB-pollution problem by making preparations to deal not only with the material it hopes to dredge from the 20 hot spots in the Thompson Island Pool, as formerly, but also from the other 20 hot spots, and to be removed from the remnant deposits. Moreover, it is preparing an application for the use of Site 10 not merely as an encapsulation facility, as formerly, but also as a work space for applying some as-yet-not-specified PCB-removal- and/or PCB-destruction process (and is still hoping to be assisted in dealing with the 20 hot spots in the Thompson Island Pool by the $17 million or so federal dollars remaining in the Sec. 116 allotment). US EPA has so far shown no inclination to reexamine its 'interim evaluation' made under Superfund I that eating fish contaminated with PCBs known to be spreading down the Hudson River is not a human-health hazard which requires immediate remedial action and New York State has shown no hint that it is willing to tackle US EPA to have EPA correct that manifest outrage it has therein perpetrated on New Yorkers. And, like the sleeping giant of children's fairy stories, New York City seems oblivious to the PCB situation in the Hudson River and to the lack of public-health concern

behind us. These relationships have prompted the idea, now widely believed, that nature is curing the Hudson River's PCB-contamination problem. The concept was expressed in EPA's 1984 Superfund R.O.D. by the phrases: 'natural recovery' and 'natural assimilative capacity.'

Two contrasting natural processes are thought to be involved: (1) covering of 'old' PCB-contaminated sediments with 'new' 'clean' sediments; and (2) 'biodegredation' of the PCBs in buried sediments by anaerobic bacteria. I review the origins and wide circulation of the ideas based on these two processes aand then show that their significance with respect to the PCB-pollution problem in the upper Hudson River ranges from fallacious to trivial.

Origin of the concepts

"The idea that PCB-contaminated sediments are being covered by 'clean' sediments began to circulate in the early 1980s in the documents prepared for the environmental-permit proceedings associated with NYS DEC's proposed hot-spot dredging project: For example, it was implied in 1982 (in Comment No. 6 on the draft of US EPA's Environmental Impact Statement on the Hudson River hot-spot dredging project) by a member of US EPA's peer-review panel in the following query: "Will the 'stable' hot spots now covered by clean sediment be dredged? Will these hot spots remain stable during storm events if left untouched?"

"After it had appeared in the scientific literature in 1983 (Schroeder and Barnes, 1983, p. 16), it was picked up in many newspaper reports (and thus has become embedded in the public mind), and has become one of Congressman Solomon's recurrent assertions.

"Similarly, the wide circulation of the term biodegradation began with the publication in technical journals of research reports that showed aerobic bacteria were capable of destroying PCBs (=mineralizing of Alexander, 1981, p. 132). These research results were reported in the public press and circulated widely. The recent spate of press reports centered on the interpretation of congener patterns in core samples of upriver sediment in which the lower-chlorinated congeners predominate. One favored explanation was that such congener patterns had been created by anaerobic bacteria. This interpretation was strengthened by laboratory experiments carried out by microbiologists from Michigan State University (supported financially by GE). Late in 1988, Quensen, Tiedje, and Boyd (1988)

in the following section on geochemical-microbiological aspects.

"Those who have been advocating the idea that PCB hot spots are being 'covered by clean sediments' have not discussed an absolutely fundamental principle of sedimentation: control by base level. Rather, their ideas seem to suggest that they visualize the conditions in the pools behind the upriver dams as being analogous to those within a beaker in a chemistry laboratory within which sediment can be added to build up new layers and none escapes.

"The evidence that PCBs attached to sediments which were scoured from the floor of the Thompson Island Pool pass through to the estuary means only one thing: these sediments are bypassing the lower pools. Whatever areas these suspended sediments bypass are not likely candidate sites for layer-by-layer accumulation of 'new' sediments. If further evidence is required, it is close at hand. Only a few cores collected from the upper river by Richard Bopp and colleagues from the Lamont-Doherty Geological Observatory of Columbia University and analyzed from the point of view of utilizing anthropogenic tracer materials, have yielded results comparable to those found in many parts of the estuary or in the Albany turning basin. To me, this rarity of finding geochemical tracers distributed as in the favorable areas means that sediments are not being deposited by the layer-by-layer mechanism.

Geochemical-microbiological aspects: insights based on congener-specific analyses

"Given the doubts just expressed about the general lack of applicability of the layer-by-layer model to most upriver areas, what about the other part of the 'covering-by-clean-sediments' idea, namely that the 'new' sediments are clean? At first glance, this idea seems valid. After all, new sediments continue to be transported down the upper Hudson River. And, because GE's capacitor-manufacturing plants are no longer discharging PCBs, as they were between about 1950 and 1977, one can reasonably expect that the new sediments passing these plants would be 'clean.'

"The congener-specific analyses by Bopp and by Bush indicate that the transfer of PCBs from contaminated bottom sediments to overlying water causes a major shift in the congener pattern away from the higher-chlorinated varieties and toward the lower-chlorinated kinds (See Figure 24). Sediments that scavenge the dissolved congeners out of the water preserve the water pattern. Not much is known

Hudson River north of the Thompson Island Dam, and possibly from other upriver localities, as well. A need exists to deal with both the source of the ongoing downriver PCB transport (coming from the surficial layer of sediment that I think is being subjected to the 'thrashing-carpet' mechanism during floods), and the PCB 'time bomb' represented by the buried hot spots. More PCBs are concentrated in the hot spots than elsewhere. Accordingly, if one is not in a position to carry out the entire clean-up job in a single project, then logic and cost-effectiveness considerations dictate that the first effort be made to keep the PCBs in the hot spots from ever spreading. The evidence that anaerobic bacteria are getting rid of the buried PCBs in the hot spots on a large enough scale to preclude the necessity for getting these sediments out of the river is not yet convincing to me. Accordingly, I doubt the wisdom of hoping that anaerobic bacteria can eliminate these buried PCBs before the next big flood transports another surge of them into the estuary and spreads many of the rest of them all over the bed and banks of the upper river."

And from the Conclusions section:

"While all these governmental activities have been taking place, the Hudson River has been (and still is) continuing to acquire a load of PCBs from the contaminated bed sediments north of the Thompson Island Dam. At low levels of discharge (366 cubic meters per second at Rogers Island, which usually corresponds to a discharge at Waterford of 600 cubic meters per second), the PCBs are dissolved out of the polluted bed sediments. At greater discharges, the river erodes the contaminated sediments themselves. The sediment particles scavenge the dissolved PCBs out of the water column. The amounts of PCBs per year washed over the dam at Green Island and into the estuary have dropped from about 2 tonnes in the late 1970s to 1 tonne and less in the 1980s (based on USGS data; the 1989 results of Brian Bush of 4 kilograms per day in July are higher than the USGS results). Until 1983, PCB values in fish correspondingly declined but thereafter, fish PCB levels have closely reflected the quantity of water flowing down the river.

"These declines have been accepted as evidence that the river is 'cleaning itself.' Two mechanisms supposedly contributing to this natural cleaning are: (1) in the upper river, new 'clean sediments,' are believed to be covering 'old,' PCB-contaminated sediments (a view I refer to as 'covering with new blankets'); and (2) anaerobic bacteria are believed to be 'biodegrading' the PCBs from the hot spots. I contend that the sedimentologic evidence as well as the geochemical data do not support

"The evidence about the 1976-1989 isolation of the buried hot spots and the derivation of the continuing PCB load of the river from the surficial layer of sediments that overlies the hot spots poses a dilemma for NYS DEC. The compelling justification for dredging the PCB-contaminated hot spots, particularly those from north of the Thompson Island Dam, is to prevent another large flood, to be expected in the 1990s, from repeating the environmental disasters wrought by the 1974-1976 floods. In other words, the prime objective is to defuse the ticking PCB 'time bomb' represented by the buried hot spots. But, for DEC to emphasize this point in its arguments in favor of carrying out the hot-spot dredging program is to draw attention to DEC's less-than-salutory role in the 1973 removal of the Fort Edward Dam. Be that as it may, I compare the hot spots and their overlying surficial layer of PCB-contaminated sediments to a series of 'pillows' (=the hot spots) and to the 'feathers' spread around from previously broken pillows (=the contaminated surficial layer). Given limited resources and the inability to launch a single project to deal with both, I conclude that in its efforts to try to remove the PCB 'pillows,' DEC has made the correct choice. In the proceedings of Hudson River Siting Board II, GE argued that DEC was proposing to dredge 'the wrong PCBs.' By this, GE was referring to what I call the 'feathers.' Two contrasting objectives clearly are involved: (1) to pick up what is left of the 'feathers,' from which the river is currently acquiring its load of PCBs and thus contribute to an immediate, further decline in PCBs going into the estuary and hence into the fish; or (2) to remove the 'pillows,' and to thus prevent a large flood from spreading more feathers hither and yon. A single, partial dredging will not accomplish both desirable objectives. DEC's proposed hot-spot dredging project must be clearly seen and advocated for what it is, namely an effort to deal only with the 'pillows.' It should be unambiguously divorced from the equally valid, but entirely separate short-range objective of bringing about a further decline in PCBs derived from the 'feathers.' I think that much of the inconclusive argument that has developed over the merits of the proposed hot-spot dredging project is a product of confusion between these two contrasting objectives.

"Upstate opponents of the proposed dredging project are content with the no-action alternative. They consider that time is on their side. Moreover, if no remedial action is ever taken, then the possibility exists that the PCB-contaminated sediments will all wash away from their existing upstate locations and be transported downstate. Upstate residents view this prospect with considerable satisfaction.

official Record of Decision (R.O.D.) on the Hudson River PCB Superfund site.

In New York State, where the Hudson River is demonstrably spreading PCBs from upriver contaminated sediments into the largest metropolitan area in the country, New York City and vicinity, the US EPA R.O.D. (25 September 1984) concluded that the existence of fish whose edible flesh contains about 4 ppm of PCBs does not constitute a human-health hazard. Specifically, EPA's decision about the fish in the Hudson River is to rely on what I call "nature's remedy." I repeat here the critical phrase from the US EPA R.O.D.:

> "The enforcement of the fishing bans and the continued monitoring of the contamination should reduce the threat to consumers while the fish population continues its natural recovery during the interim evaluation period. It is projected that the natural assimilative capacity of the river will continue the downward trend in the levels of PCBs found in the river."

This assertion was made a whole month after the US FDA had lowered its action level for PCBs in fish from 5 ppm to 2 ppm. The New York fish, therefore, are not a human-health hazard under an FDA action level of 5 ppm, but are a human-health hazard (by definition) under an FDA action level of 2 ppm. Accordingly, the statement in EPA's R.O.D. that the FDA action level was 5 ppm is totally wrong. Consequently, its conclusion that consumption of fish containing 4 ppm of PCBs does not constitute a human-health hazard is absolutely without foundation and invalidates the whole document. Moreover, as the enclosed graph proves, the EPA "projection" about a continued downward trend in the PCB values in the fish simply has not materialized.

Reduced to its simplest terms, the EPA position, as stated in the Hudson River R.O.D., compares with the famous remark ascribed to Marie Antoinette when she heard of the lack of bread for the hungry mobs of Paris 200 years ago: "Let them eat cake." EPA's 1984 equivalent is: "Let them (the New Yorkers) eat PCBs." [And to that may also be added: "Let them drink PCBs," for in early 1989, during a drought emergency, New York City tapped into the Hudson at Chelsea to augment its water supply by pumping 100 million gallons per day into its Croton Reservoir.] In short, faced with a major river spreading PCBs into the nation's largest metropolitan area, EPA's R.O.D. under Superfund I concluded that no human-health hazard exists!

In total contrast is the EPA position with respect to New Bedford, Massachusetts, where PCB-contaminated sediments are concentrated at the head of a small estuary, where the entering Acushnet River brings in what must be considered a "trickle" of water compared with the flow of the Hudson. Moreover, the natural action of the tides in New Bedford is to deposit suspended sediment at the head of the estuary rather than spread

this travesty yourself from within and to do environmental justice to the people of New York. I would have been raising my voice on this matter much earlier, but as indicated, I was "snookered" by misreading Lee Thomas' nine for a seven. The truth is out and you need to forthwith correct your outrageous, illegal R.O.D. about the Hudson River PCB situation. Where is SARA? Where is the required retrofitting of your previous human-health determinations it requires? Where is the SITE program? I call upon you to get to a permanent solution as in New Bedford. Let GE carry on with building the access routes into the remnant deposits, but invoke the provisions of SARA and carry out a SITE program, letting the Wright-Malta Corp., of Ballston Spa, NY, show how their process destroys PCBs and locks up the heavy metals in the char residue and, as a byproduct, generates electricity. Insist on a complete cleanup of the PCBs from the upper Hudson River. Let GE have the opportunity to dredge the "right" PCB-contaminated sediments from the upper Hudson River, namely all of them, from "feathers" to "pillows."

Respectfully submitted,

John E. Sanders

John E. Sanders
Chairman, Hudson River
PCB Settlement Advisory Committee.

Enclosures:

Newspaper clippings
Graph of PCBs in Hudson Estuary striped bass
(based on data from Ron Sloan, NYS DEC).

HRP 001 0088

Ruling Allows 'ishermen To Sue on PCB's in Hudson

3/20/84

By THOMAS MORGAN

A New York appeals court has ruled that commercial fishermen who fish the Hudson River and along Long Island can sue the General Electric Company for damages stemming from toxic chemical contamination of the river.

The suit, which the court said was the first of its kind brought by commercial fishermen, calls for monetary damages against General Electric, as well as an order that the company remove polychlorinated biphenyls, called PCB's, from the Hudson.

The ruling last Thursday by the Appellate Division of State Supreme Court allows the case to proceed in State Supreme Court in Suffolk County, where it was first brought two years ago. General Electric had sought to have the suit dismissed on the ground that Federal litigation on the cleanup of the Hudson River pre-empted the fishermen's suit.

A spokesman for General Electric said the company has not decided whether to appeal the Appellate Division's ruling to the state's highest court, the Court of Appeals.

Citing $20 Million Loss

"The court's ruling is an important harbinger of things to come in this case," said Sidney B. Silverman, a lawyer who represents the New York State Fisherman's Association, the United Fisherman's Association and fishermen from East Hampton and Montauk, L.I. "The fishermen have lost as much as $20 million in past and prospective earnings because of PCB's."

The anglers 'have lost as much as $20 million in earnings.'

The company stopped dumping PCB's into the river in 1977 after the state's Department of Environmental Conservation found G E responsible for the toxic chemical in the Hudson River. PCB's, which have been known to cause cancer in animals and to make humans ill, were used until 1977 as electrical insulators in power transformers and other electrical devices.

Since then, the company and state officials have been studying the problems of PCB removal from the Hudson River amid some controversy over where to dump the toxic material to be dredged from the river.

dump.

"Solutions to the problems of the fishing industry in the lower Hudson River and Eastern Long Island are far more complex than attempting to blame one company," said Jack Batty, a spokesman for G.E., which says that PCB's in the river have also come from sources other than General Electric. "The G.E. plants alleged to be the sources of PCB contamination are located in Hudson Falls and Ft. Edward, N.Y., nearly 200 miles from the mouth of the Hudson and more than 300 waterway miles from the Eastern Long Island fishing area."

Mr. Silverman, the lawyer for the fishermen, disagreed. "Striped bass breed in the Hudson," he said. "They migrate to the Hudson every year and then live in salt water off Long Island."

The fishermen's groups contended in the suit that the dumping of PCB's into the Hudson resulted in a 1985 state ban on the sale of striped bass from the lower Hudson and the western edge of Long Island. A year later, the state Department of Environmental Conservation banned striped bass fishing anywhere in the state for commercial or recreational purposes. The ban severely limits the livelihood of fishermen in the region, Mr. Silverman said.

extension of earlier 1975 ban

changed to 1 fish day,
> 33 in for E Long Island.

Fishermen Sue GE On PCBs

Recreational and commercial fishing associations from Montauk to the New York Bight joined this week in a $10 million class-action suit against the General Electric Company for allegedly environmentally polluting the Hudson River with polychlorinated biphenyls or PCBs. Because the presence was discovered was verified through tests to have contaminated in the flesh of striped bass, the State Department of Environmental Conservation in May banned the sale of bass taken from the Lower Hudson and all fish waters except those off Long Island east of Wading River. Bass fishing has been banned in the Upper Hudson since 1976. The DEC has allowed eastern Long Island fishermen to continue catching bass due one of the maximum legal size, 24 inches, having agreed tests to determine PCB levels in fish caught here have been satisfactory.

The suit, filed yesterday in Riverhead State Supreme Court, asks $10 million in punitive damages, plus damages for lost income, an amount that would be set by a jury, and that GE clean up the Hudson "forthwith." In 1981 the Federal Environmental Protection Agency estimated thorough cleaning would cost over $40 million.

The East Hampton Town Boatmen's Association, the Montauk Boatmen's Association, the State Commercial Fishermen's Association, and the United Fishermen's Association filed the suit. Their lawyers are Joseph Carlone of Montauk, a powerful Republican long involved in State politics, and Sidney Silverman, a longtime Amagansett resident who specializes in class-action law in Manhattan, and who has worked before with Mr. Carlone.

Unprecedented

The suit has no precedent, said Mr. Silverman. "We will be on the cutting edge." A key determination will be whether fishermen can sue for economic injury based on economic gain because of pollution.

Massachusetts fishermen lost a similar suit this year. They charged area chemical companies had polluted New Bedford Harbor with PCBs, causing fishermen there. The court said the fishermen to go elsewhere to do their work, said Mr. Silverman, but bass fishermen cannot. The species is dwindling in the Chesapeake, and is plentiful in the polluted Hudson. The fishermen also lost because under Massachusetts law a person cannot sue for loss income unless one "received a physical injury to person or property," said Mr. Silverman. "Since the fishermen's nets or boats were not damaged" the court ruled against the fishermen.

"Commercial fishermen have lost income and . . . they're entitled to recover from lost income," the lawyer said. He said Mr. Carlone will be asking the State to "serve not a symbolic function" for commercial fishermen as their damages are not merely recognized by physical changes. Such an acceptance has been made in other States, said Mr. Silverman, citing a case in Louisiana in 1980 when two ships crashed on the Mississippi River and hydrocarbons and spilled.

A Direct Recovery

For three weeks, Mr. Silverman recommend, 400 square miles of water were closed to commercial fishermen, striped, crustaceans, and shrimpers. Fishermen and others in the marine business said. The Louisiana court dismissed claims by some of the plaintiffs, such as seafood consumers and boat rental operators, claiming their losses in "ripple" effects of the spill. But the court ruled fishermen deserved "protection from the negligent conduct of others," according to Mr. Silverman, because they "directly make use of a resource of the sea . . . in the ordinary course of their business."

A California court also allowed commercial fishermen to sue for damages after the 1969 oil spill in Santa Barbara, Mr. Silverman said. "I assume still you we will surely win," the lawyer said, adding his view that the case was very strong. He said Mr. Carlone will work on a contingency basis, being paid only if the case is won, with their fee set by the judge.

A General Electric spokesman said he had not heard of the suit yet Tuesday, when the company was served with papers. GE dumped 500,000 pounds of PCBs into the Hudson over a period of 30 years, ending in 1977, about seven years after a well-publicized outbreak of this cancer in Yusho, Japan. Believed caused when rooms ingested PCB-contaminated cooking oil. Thousands died, most of the babies delivered by pregnant victims had cancer and permanent birth defects, the court papers filed on behalf of laymen report. PCBs were a basic ingredient in plastics and many other products, like paint, hydraulic fluid, and soap.

Agreement With State

The Hudson dumping ended in 1977 with an agreement between GE and the State that stopped short of prosecution. GE would contribute $3 million to clean up the waste and $1 million for research; the State Department of Environmental Conservation would contribute $3 million toward clean up.

Claiming 400 spots near the two GE

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