American Fisheries Society

Northeastern Division

Maine
Massachusetts
New Brunswick
Newfoundland
New Hampshire

January 21, 1980

Mr. Clarence R. Hickey, Jr.
U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Site Safety and Environmental Analysis
Washington, D. C. 20555

Dear Clarence:

I am happy to inform you that the paper you submitted for our consideration has been selected for presentation at the 1980 meeting of the Northeast Division of the American Fisheries Society in New York. An advance copy of the fisheries portion of the program is enclosed. This will let you know the date and approximate time for which your presentation is scheduled and will also give you the name of the Session Chairman.

We are allotting 30 minutes for each paper -- 20 minutes for the actual presentation and 10 minutes for discussion. You should alert your Session Chairman if you need more or less time. This will permit appropriate adjustment in the program to keep it on schedule.

The Program Committee has developed the following guidelines for consideration by all program participants. First, do not bore the audience with a detailed rehash of standard methods, gear or methods of analysis that most have heard before. Second, your presentation should be well organized and rehearsed beforehand. Make certain that the most important points or highlights of your paper receive proper emphasis. Third, illustrative material, especially tables and figures, should be carefully prepared, clear and readable. Don't include so much data that slides are difficult to read or understand. Please plan on having all of your graphs, charts, tables and other visual aids reproduced on 35 mm slides. Past experience has proved that this approach is superior to use of overhead projectors. Other projection equipment will be available for special needs. Fourth, your Session Chairman will rigorously enforce the time limit for presentations to provide a smooth, comfortably paced program that should hold the attention of your audience.

Following past policy of the Northeast Division AFS and because of the expense, the Program Committee will not publish papers given at the fisheries sessions. We will, however, prepare a good set of abstracts for general distribution.

Please let me know as soon as possible if you are unable to present your paper or cannot have it presesented by an associate.

We are impressed by the overall quality of papers which have been accepted and think that the program will be excellent. We sincerely appreciate your interest in the meeting and look forward to your participation.

Please call me at 518-457-5698 if you have any questions.

Sincerely,

Paul Neth

Paul C. Neth
1980 Program Committee Co-Chairman
Northeast Division, American
Fisheries Society

PCN/ja
Enclosure

The Non-Radiological Consequences to the Aquatic Biota and Fisheries of the Susquehanna River from the 1979 Accident at Three Mile Island Nuclear Station[1/]

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Robert B. Samworth

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ABSTRACT

The non-radiological consequences to the aquatic biota and fisheries of the Susquehanna River from the March 28, 1979 accident at Three Mile Island Nuclear Station were assessed through the post-accident period of July 1979. Thermal and chemical discharges during the period did not exceed required effluent limitations. Several million gallons of treated industrial waste effluents were released into the river which were not of unusual volumes compared with normal operation and were a very small proportion of the seasonally high river flows. The extent and relative location of the effluent plume were defined and the fishes known to have been under its immediate influence were identified, including rough, forage, and predator/sport fishery species.

1/ Published under the same title by the authors as USNRC Technical Report, NUREG-0596, November 1979, 98 pages. Available from: USNRC, Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555.

No impacts to benthic invertebrates or fishes were detected. No unusual conditions of fish disease or mortalities were noted. Normal seasonal increases in faunal abundance and species composition occurred, as did the onset of the fish spawning season in April with peaks of ichthyoplankton abundance in May and June.

Post-accident recreational fishing patterns in the vicinity of Three Mile Island departed from historical trends. Fishing appeared to partially shift emphasis from the reservoir proper near the nuclear station to other areas, especially downstream. Anglers fished relatively less in the reservoir and returned greater proportions of their catches than during any corresponding time period within the previous five years. This was most notable during April when anglers returned an unprecedented 100% of their catches. With time following the accident, the patterns of recreational fishing returned to normal or near-normal.

Several generic aspects of this investigation are discussed, including: the occurrence of the accident with respect to the biological season, and the ability to detect an impact; data availability and data needs for assessment; and the application of these non-radiological findings for radiological impact assessment.