The Potomac Chapter
American Fisheries Society
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February 5, 1980

Dr. Clarence Hickey
Fishery Biologist
U.S. Nuclear Regulatory Commission
P234
Washington, DC 20555

Dear Clarence:

The Potomac Chapter of the American Fisheries Society (AFS) will hold its Fourth Annual Meeting in Annapolis, Maryland, May 22-23, 1980. As you know, membership in the Potomac Chapter is open to all members of AFS residing in Maryland, Virginia, Washington, D.C., and the eastern portion of West Virginia.

The program for the 1980 annual meeting will focus on problems of the Chesapeake Bay and appropriate drainage systems. I would like to extend an invitation to you to attend the meeting and to address the subject generally covered in your recently published report on the TMI incident. What were the actual ecological impacts (emphasis on fisheries) of TMI? Program participation requirements will be presentation of a 30-minute talk (including 5-10 minutes for questions) and submission of a paper for publication in the proceedings of the annual meeting. The proceedings will be published next summer.

At your earliest convenience, please let me know if you are able to accept this invitation. I sincerely hope you will be able to accept as the proposed paper would make an interesting and informative contribution to the conference.

Sincerely yours,

Norville

Norville S. Prosser
President-Elect

NSP:mcb

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/]

Clarence R. Hickey, Jr.
Robert B. Samworth

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

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.