UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

AUG 17 2010

Laura Quinn
Office of New Reactors
Mail Stop: T-7D30
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Ms. Quinn:

The National Marine Fisheries Service (NMFS) has reviewed Public Notice CENABOP-RMS 2007-08123, dated September 3, 2008; the draft Environmental Impact Statement (DEIS) and the essential fish habitat (EFH) assessment, all dated April 2010, for the Combined License for Calvert Cliffs Nuclear Power Plant, Unit 3.

NMFS, in general, does not object to the proposed new unit. Locating the proposed unit at the site of the existing Constellation Generation facility will consolidate impacts to fish resources. The proposed closed loop cooling system, lower intake volumes from the Bay, and use of intake design parameters that minimize fish entrainment and impingement will maintain fish mortality rates at levels significantly lower than those from the existing plant intake.

Our outstanding issues that remain relative to the proposed facility pertain to compensatory mitigation requirements for tidal and non-tidal impacts. We offer the following comments and recommendations on the mitigation issue.

ESSENTIAL FISH HABITAT: NEW DREDGING OF THE ACCESS CHANNEL TO THE RESTORED BARGE UNLOADING FACILITY

The proposed lengthening of the access channel to the barge unloading facility will directly affect the substrate of Natural Oyster Bar 19-2 (Flag Pond Oyster Bar). While oyster productivity on the Flag Pond Bar is currently low, surficial substrate within the proposed dredge area on the bar is comprised chiefly of sand, and is of oyster-producing quality.

Similar to other oyster bars in the mesohaline section of the Bay, the Flag Pond Bar supports benthic and pelagic communities important to local food webs. Sand substrate is preferred habitat for many benthic invertebrates, including mysid shrimp (*Mysis* spp.), sand shrimp (*Crangon* spp.); and, the commercially important soft clam (*Mya arenaria*). Sand bottom also provides unique and select foraging opportunities for bottom fish, and is preferred forage ground for many predatory species such as summer flounder (*Paralichthys* dentatus) and weakfish (*Cynoscion regalis*).

The proposed new dredging will permanently alter 4.5 acres of sandy bottom on the Flag Pond Oyster Bar. Deepening the dredge area to minus 16 feet, mean low water (MLW), may expose under-lying clay sediments, and will facilitate settling and accretion of fine-grain materials on the dredged channel bottom. Fine-grain substrate occurring adjacent to the previously dredged

barge unloading facility likely reflects the habitat conditions that will exist in the newly dredged access channel.

Because the proposed dredging will permanently impact coarse-substrate benthic community, as well as forage habitat important to managed species such as summer flounder, NMFS recommends that compensatory mitigation be required for the 4.5 acres of dredging impact on Flag Pond Bar. The compensatory action should be in–kind; and, at a 2:1 replacement ratio. NMFS recommends pursuant to Section 305(b)(4)(A) of the Magnuson-Stevens Fishery Conservation & Management Act that the Nuclear Regulatory Commission adopt the following EFH conservation recommendation.

Many oyster bars in the mesohaline section of the Chesapeake Bay have areas of substrate comprised of hard-pan clay and/or compacted mud. For example, one such area is Kent Narrows Bar in Queen Anne's County, where strong tidal currents maintain a surficial substrate of hard-pan clay. Opportunities exist in on these bars for enhancement of substrate with additions of sand and gravel.

1. With assistance from the Maryland Department of Natural Resources, Unistar should identify nine acres of public oyster bar within the mesohaline section of the mid-Chesapeake Bay with compacted clay/mud bottom. The selected nine acres of bottom may be distributed over one or three different public bars, and should be checked for firmness and ability to support additions of coarse material additions prior to material placement (e.g., through poling of the substrate). Selection of bars swept by strong bottom tidal currents is preferred, to avoid excessive siltation of the new substrate.

   The substrate of the identified nine-acres should be built-up or raised in elevation through placement of clean coarse sand, pea-gravel, small cobble from an upland source, to a thickness that will facilitate natural maintenance of the modified substrate (e.g., 24-36 inches).

2. The enhancement site(s) should be monitored by Unistar over a five-year period for resilience of the modified bottom as coarse substrate. Success of the enhancement action should be gauged by it producing at least 4.5 acres of stable coarse bottom substrate by the end of the five-year monitoring period. In the event of failure to meet the 4.5-acre threshold of success, requirement of Unistar to provide additional tidal compensatory mitigation at the end of the monitoring period will be at the discretion of the federal regulatory/resource agencies.

PROTECTION OF THE JOHNS CREEK NONTIDAL WATERSHED

With proposed displacement of headwater tributaries to Johns Creek, NMFS has been particularly concerned about adverse hydrologic impacts associated with this project throughout the Johns Creek watershed. Consequently, we are strong supporters of the proposed use of regenerative stormwater management (RSM), a process for transferring surface water flow off the impervious surface to the shallow ground water system which feeds downstream base flow. This process is widely practiced in Maryland and in other areas. The applicant is proposing to implement this process within upper Johns Creek and its headwater tributaries, to minimize

typical watershed impacts associated with deforestation and increased impervious surface. NMFS requests that our Annapolis Habitat Field Office receive updates on installation of RSM systems associated with this project, as well as monitoring results (including photographic evidence) on the success of these systems in protecting and/or enhancing the hydrologic integrity of the Johns Creek watershed.

NONTIDAL WETLAND & STREAM COMPENSATORY MITIGATION

A significant portion of the proposed mitigation for nontidal wetland and stream impacts involves eradication of *Phragmites australis*. In consideration of the resistance of this species to control measures, the proposed control actions should be employed within designated areas in perpetuity, in order to better ensure success. Permanent common reed control measures that are the responsibility of the applicant should be required as special conditions in the authorized 404 permit for this project, with monitoring reports on success required up to 5-years following initiating of the enhancement action.

If you have any questions concerning this matter, you should contact John S. Nichols of our Annapolis, Maryland, Habitat Office; (410) 267-5675; or, John.Nichols@NOAA.GOV.

Sincerely,

Peter Colosi

Peter D. Colosi, Jr.
Assistant Regional Administrator
for Habitat Conservation