

October 30, 2001

MEMORANDUM TO: Lakshminaras Raghaven, Acting Chief
Section 1
Project Directorate I-1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Kathy Halvey Gibson, Chief **/RA/**
Emergency Preparedness and
Health Physics Section
Reactor Safeguards, Radiation Safety, and
Emergency Preparedness Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: SAFETY EVALUATION FOR A REQUEST TO DISPOSE OF
CONTAMINATED DREDGED SEDIMENT AT THE OYSTER CREEK
GENERATING STATION PURSUANT TO 10 CFR 20.2002

The Emergency Preparedness and Health Physics Section has completed its review of the AmerGen Energy Company's (the licensee) request, pursuant to 10 CFR 20.2002, dated December 29, 2000, as supplemented on September 25, 2001, to dispose of previously dredged material which contains licensed radioactive material onto licensee owned property.

Based on our review, we find that the licensee has provided adequate justification to support its request. The attachment to this memorandum provides our evaluation of the licensee's application.

This completes our review under TAC No. MB1088.

Docket No. 50-219

Attachment: Safety Evaluation

CONTACT: Stephen Klementowicz, NRR/DIPM/IRSB/EP/HP
(301) 415-1084

SAFETY EVALUATION BY THE EMERGENCY PREPAREDNESS

AND HEALTH PHYSICS SECTION

OFFICE OF NUCLEAR REACTOR REGULATION

OYSTER CREEK GENERATING STATION

DOCKET NO. 50-219

1.0 Introduction

By letter dated December 29, 2000, as supplemented on September 25, 2001, AmerGen Energy Company (the licensee), submitted a request, pursuant to 10 CFR 20.2002, to dispose of approximately 180,000 cubic yards of previously dredged material which contains licensed radioactive material onto the Finninger Farm property immediately to the east of Oyster Creek. This property is owned by the licensee but is not considered part of the Oyster Creek Plant site as defined in the Updated Final Safety Analysis Report. The material was generated as a result of dredging portions of the Oyster Creek and Forked river in 1978, 1984, and 1997. The licensee's dredging of these waterways was performed in accordance with the final environmental statement for the Oyster Creek Generating Station and the New Jersey Board of Public Utilities to remove sediment from the creek and river bottom, which was causing shoaling. The disposal method consisted of pumping the dredge material to a dewatering basin, allowing the material to dry.

2.0 Evaluation

The licensee performed a comprehensive radiological evaluation of the dredged material located in a 17.5 acre area on the 600 acre Finninger Farm property. The evaluation included data from the radiological analyses of the sediment performed prior to the last dredging in 1997. These samples were analyzed for gamma emitting radionuclides in accordance with the licensee's Radiological Environmental Monitoring Program. The maximum concentrations of radionuclides in the sediment attributable to effluents from the Oyster Creek Station were 0.08 picocuries per gram for Cobalt 60 and 0.270 picocuries per gram for Cesium 137. Sampling and analyses performed on the 1978 and 1984 dredged material showed the radionuclide activity to be less than that of the 1997 material.

The licensee calculated the potential annual dose to the average member of the critical group (i.e., a resident farmer) from the probable exposure pathways (i.e., direct exposure, inhalation, consumption of crops and water) based on the volume of disposed material, the radionuclide

composition, and the activity. The assessment is conservative because: no background activity has been subtracted, radionuclide concentration averages are based only on the positive sample results, and no adjustment for radioactive decay to the present date was included. The resultant calculated annual dose to a member of the public is less than 1 mrem.

3.0 Conclusion

The staff finds the licensee's application to dispose of approximately 180,000 cubic yards of dredged sediment will result in a potential annual dose to a member of the public of less than 1 mrem. This calculated dose is well within the 10 CFR Part 20 annual dose limit of 100 mrem and less than the decommissioning criteria for unrestricted use of 25 mrem in a year. The staff finds the licensee's application, pursuant to 10 CFR 20.2002, will not have an adverse impact on the public and is acceptable.

October 30, 2001

MEMORANDUM TO: Lakshminaras Raghaven, Acting Chief
Section 1
Project Directorate I-1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Kathy Halvey Gibson, Chief **/RA/**
Emergency Preparedness and
Health Physics Section
Reactor Safeguards, Radiation Safety, and
Emergency Preparedness Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: SAFETY EVALUATION FOR A REQUEST TO DISPOSE OF
CONTAMINATED DREDGED SEDIMENT AT THE OYSTER CREEK
GENERATING STATION PURSUANT TO 10 CFR 20.2002

The Emergency Preparedness and Health Physics Section has completed its review of the AmerGen Energy Company's (the licensee) request, pursuant to 10 CFR 20.2002, dated December 29, 2000, as supplemented on September 25, 2001, to dispose of previously dredged material which contains licensed radioactive material onto licensee owned property.

Based on our review, we find that the licensee has provided adequate justification to support its request. The attachment to this memorandum provides our evaluation of the licensee's application.

This completes our review under TAC No. MB1088.

Docket No. 50-219

Attachment: Safety Evaluation

CONTACT: Stephen Klementowicz, NRR/DIPM/IRSB/EP/HP
(301) 415-1084

DISTRIBUTION

EPHP Reading File

K. Gibson H. Pastis S. Klementowicz

ADAMS Accession Number: ML012980209

Document Name: C:\Program Files\Adobe\Acrobat 4.0\PDF Output\Oyster Creek 20.2002.wpd

OFFICE	DIPM/NRR	DIPM/NRR	
NAME	SKLEMENTOWICZ	KGIBSON	
DATE	10/ 29 /2001	10/ 30 /2001	

OFFICIAL RECORD COPY