UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

MAR 14 1979

U. S. Department of Interior
Bureau of Land Management
New Orleans Outer Continental Shelf Office
ATTN: Mr. M. P. Sieverding
Acting Manager
600 Camp Street Suite 841
New Orleans, Louisiana 70130

Dear Mr. Sieverding:

We have reviewed your letter of December 29, 1978 in which you request certain information from the U. S. NRC relative to proposed oil and gas lease sales in the South Atlantic - Georgia Embayment.

Our responses to your specific questions are provided in the enclosures to this letter. We trust that this information will prove useful to you in the development of the environmental impact statement for the proposed project.

If you require additional information relative to this letter please contact me or Mr. Clifford A. Haupt. We may be reached at FTS 492-8440 or 492-8434.

Sincerely,

Original signed by W. H. Regan, Jr.

Voss A. Moore, Assistant Director
for Environmental Projects
Division of Site Safety
and Environmental Analysis

Enclosures:
As stated

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cc: J. Lehman
U. S. DOI

POOR ORIGINAL

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Enclosure 1

NRC Responses to Questions

1. Identify kinds and amounts of radionuclides present in produced formation waters and the environmental effects of these discharges.

   Surface releases of radionuclides should present no problems. The Liquid Generic Pathway Study (See attached report) provides results and methods which would allow order of magnitude estimates to be made for the type and quantity of the releases.

   We are aware of the existence of extensive freshwater aquifers which extend off the east coast. We have no specific information on the quality, quantity or movement of these waters. However, given the location it may be assumed that movement is from "fresh to salt". If this can be confirmed, possibly by the U. S. Geological Survey, incidental contamination of the aquifer would most likely not impact the use of the aquifer.

   Finally, if concern is high, a control and inspection program to isolate the aquifer from the drill column could be required as a condition of drilling.

2. Authorizing action required by law or regulation to complete this proposed action.

   We find the NRC has no direct regulations which would apply to the proposed action.

3. Viable nuclear energy supply alternatives to OCS oil and gas development - description, availability, environmental impacts, costs, etc.;

   From a completely new start, including planning and feasibility studies there would be a 12-14 year elapsed time to bring a nuclear power plant on line. At that time nuclear power will most probably be serving different users than oil and gas and therefore generation of electricity by nuclear power is not considered an alternative to, or substitute for, base load oil or gas power plants. National policy is to discourage the use of oil and gas for electricity generation.* These fuels will mostly be used for peaking units and perhaps some intermediate units. Currently, there is interest in converting oil and gas base load facilities to coal fired units as well as phasing out oil and gas base load plants before the end of their economic

* The National Energy Plan, Executive Office of the President, April, 1977, p. XIX

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life and substituting nuclear and coal units. However, this conversion will have been accomplished well before nuclear facilities not now being considered could be brought on line. It appears that in the future the nuclear power alternative would not be in direct competition with oil and gas as a means of satisfying base load electric demands.

4. Location of existing or proposed nuclear plants in the coastal zone and size or energy capacity for each.

   The enclosed map and table shows the nuclear power plants by state which are operating or are under construction along with their respective electric generating capacity. The plants shown by (x) on the table would perhaps be germane to your study.

5. Location of existing or proposed floating or artificial island nuclear plants in coastal zone.

   At the present time we know of no plans by utilities to site floating or artificial island nuclear plants in the coastal zone.

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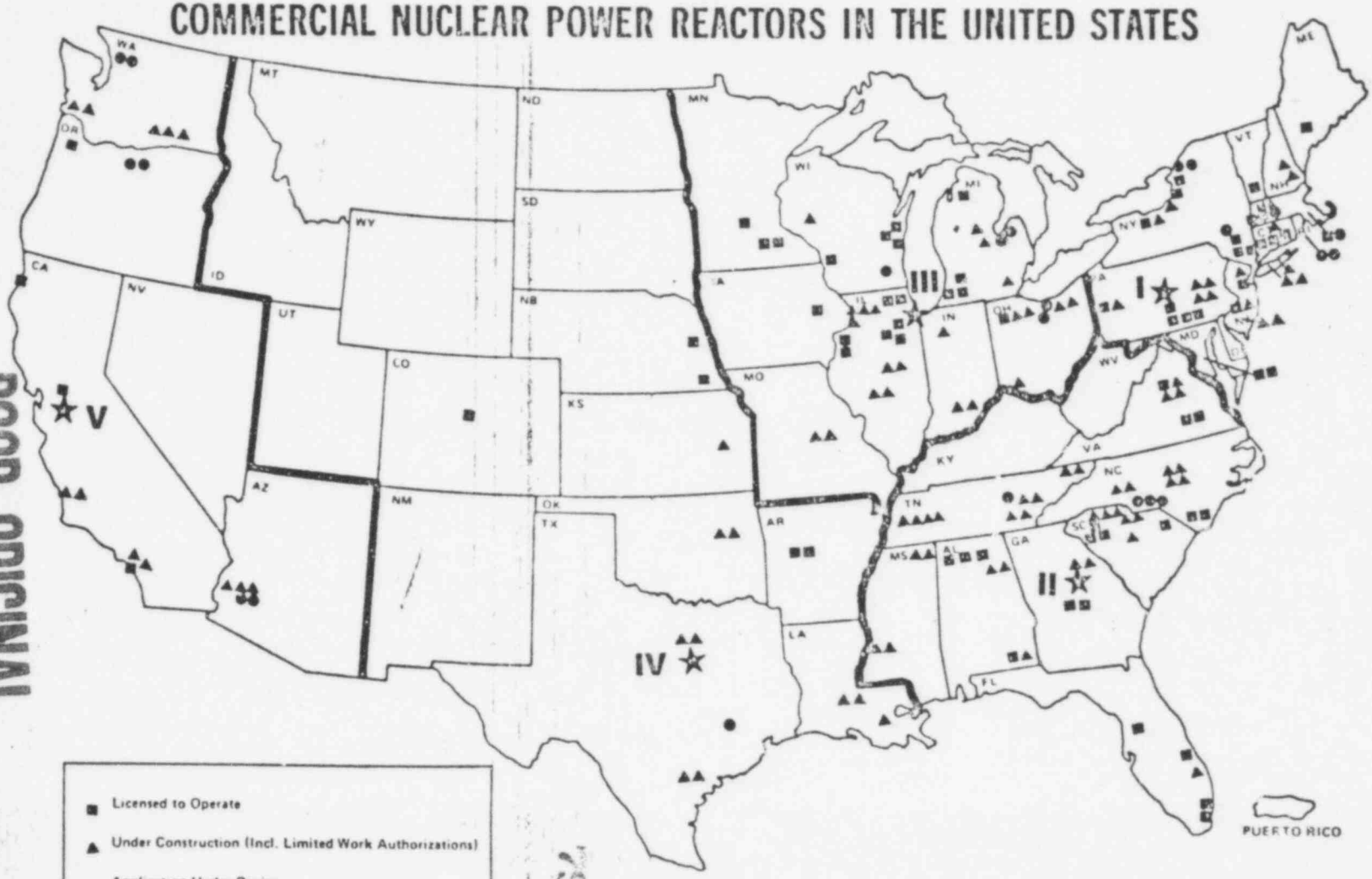
NRC REGIONAL OFFICES
AND
COMMERCIAL NUCLEAR POWER REACTORS IN THE UNITED STATES



- Licensed to Operate
- Under Construction (Incl. Limited Work Authorizations)
- Application Under Review
- Regional Offices

U. S. NUCLEAR REGULATORY COMMISSION
January 31, 1979

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POOR ORIGINAL

REACTORS BY STATE

STATE	MWE	STAGE
ALABAMA		
BROWNS FERRY 1	(1065)	LIC
BROWNS FERRY 2	(1065)	LIC
BROWNS FERRY 3	(1065)	LIC
FARLEY 1	(829)	LIC
FARLEY 2	(829)	UC/OL
BELLEFONTE 1	(1235)	UC/OL
BELLEFONTE 2	(1235)	UC/OL
ARKANSAS		
ARKANSAS 1	(850)	LIC
ARKANSAS 2	(912)	LIC
ARIZONA		
PALO VERDE 1	(1270)	UC
PALO VERDE 2	(1270)	UC
PALO VERDE 3	(1270)	UC
PALO VERDE 4	(1270)	UR
PALO VERDE 5	(1270)	UR
CALIFORNIA		
HUMBOLDT BAY	(63)	LIC
RANCHO SECO	(913)	LIC
SAN ONOFRE 1	(430)	LIC
DIABLO CANYON 1	(1084)	UC/OL
DIABLO CANYON 2	(1106)	UC/OL
SAN ONOFRE 2	(1140)	UC/OL
SAN ONOFRE 3	(1140)	UC/OL
STANISLAUS 1	(1200)	A/O
STANISLAUS 2	(1200)	A/O
COLORADO		
FT. ST. VRAIN	(330)	LIC
CONNECTICUT		
CONNECTICUT YANKEE	(575)	LIC
MILLSTONE 1	(660)	LIC
MILLSTONE 2	(830)	LIC
MILLSTONE 3	(1159)	UC
FLORIDA		
ST. LUCIE 1	(802)	LIC
ST. LUCIE 2	(842)	UC
TURKEY POINT 3	(693)	LIC
TURKEY POINT 4	(693)	LIC
CRYSTAL RIVER 3	(825)	LIC
GEORGIA		
HATCH 1	(717)	LIC
HATCH 2	(792)	LIC
VOGTLE 1	(1100)	UC
VOGTLE 2	(1100)	UC
ILLINOIS		
DRESDEN 1	(200)	LIC
DRESDEN 2	(794)	LIC
DRESDEN 3	(794)	LIC
QUAD CITIES 1	(789)	LIC
QUAD CITIES 1	(789)	LIC
ZION 1	(1040)	LIC
ZION 2	(1040)	LIC
BRAIDWOOD 1	(1120)	UC/OL
BRAIDWOOD 2	(1120)	UC/OL
BRYON 1	(1120)	UC/OL
BRYON 2	(1120)	UC/OL
CLINTON 1	(950)	UC
CLINTON 2	(950)	UC
LASALLE 1	(1078)	UC/OL
LASALLE 2	(1078)	UC/OL
CARROLL 1	(1150)	A/O
CARROLL 2	(1150)	A/O

STATE	MWE	STAGE
INDIANA		
BAILLY STATION	(660)	UC
MARBLE HILL 1	(1130)	UC
MARBLE HILL 2	(1130)	UC
IOWA		
DUANE ARNOLD	(538)	LIC
KANSAS		
WOLF CREEK	(1150)	UC
LOUISIANA		
RIVERBEND 1	(934)	UC
RIVERBEND 2	(934)	UC
WATERFORD 3	(1165)	UC/OL
MAINE		
MAINE YANKEE	(790)	LIC
MARYLAND		
CALVERT CLIFFS 1	(845)	LIC
CALVERT CLIFFS 2	(845)	LIC
MASSACHUSETTS		
PILGRIM 1	(655)	LIC
PILGRIM 2	(1180)	UR
YANKEE-ROWE	(175)	LIC
MONTAGUE 1	(1150)	UR
MONTAGUE 2	(1150)	UR
MICHIGAN		
PALISADES	(805)	LIC
BIG ROCK POINT	(72)	LIC
COOK 1	(1056)	LIC
COOK 2	(1100)	LIC
FERMI 2	(1123)	UC/OL
MIDLAND 1	(492)	UC/OL
MIDLAND 2	(818)	UC/OL
GREENWOOD 2	(1200)	UR
GREENWOOD 3	(1200)	UR
MINNESOTA		
MONTICELLO	(545)	LIC
PRAIRIE ISLAND 1	(530)	LIC
PRAIRIE ISLAND 2	(530)	LIC
MISSISSIPPI		
GRAND GULF 1	(1250)	UC/OL
GRAND GULF 2	(1250)	UC/OL
YELLOW CREEK 1	(1285)	UC
YELLOW CREEK 2	(1285)	UC
MISSOURI		
CALLAWAY 1	(1150)	UC
CALLAWAY 2	(1150)	UC
NEBRASKA		
FT. CALHOUN 1	(457)	LIC
COOPER STATION	(778)	LIC
NEW HAMPSHIRE		
SEABROOK 1	(1194)	UC
SEABROOK 2	(1194)	UC

STATE	MWE	STAGE
NEW JERSEY		
OYSTER CREEK	(650)	LIC
SALEM 1	(1090)	LIC
SALEM 2	(1115)	UC/OL
FORKED RIVER	(1070)	UC
HOPE CREEK 1	(1067)	UC
HOPE CREEK 2	(1067)	UC
NEW YORK		
FITZPATRICK	(821)	LIC
GINNA	(490)	LIC
INDIAN POINT 1	(265)	LIC
INDIAN POINT 2	(873)	LIC
INDIAN POINT 3	(873)	LIC
NINE MILE POINT 1	(610)	LIC
NINE MILE POINT 2	(1180)	UC
SHOREHAM	(849)	UC/OL
STERLING 1	(1150)	UC
JAMESPORT 1	(1150)	UC
JAMESPORT 2	(1150)	UC
GREEN COUNTY	(1212)	UR
NYE&G 1	(1250)	UR
NYE&G 2	(1250)	UR
NORTH CAROLINA		
BRUNSWICK 1	(821)	LIC
BRUNSWICK 2	(821)	LIC
HARRIS 1	(915)	UC
HARRIS 2	(915)	UC
HARRIS 3	(915)	UC
HARRIS 4	(915)	UC
MCGUIRE 1	(1180)	UC/OL
MCGUIRE 2	(1180)	UC/OL
PERKINS 1	(1280)	UR
PERKINS 2	(1280)	UR
PERKINS 3	(1280)	UR
OHIO		
DAVIS-BESSE 1	(906)	LIC
DAVIS-BESSE 2	(906)	UR/LWA
DAVIS-BESSE 3	(906)	UR/LWA
ZIMMER	(810)	UC/OL
PERRY 1	(1205)	UC
PERRY 2	(1205)	UC
ERIE 1	(1260)	UR
ERIE 2	(1260)	UR
OKLAHOMA		
BLACK FOX 1	(1150)	UR/LWA
BLACK FOX 2	(1150)	UR/LWA
OREGON		
TROJAN	(1130)	LIC
PEBBLE SPRINGS 1	(1260)	UR
PEBBLE SPRINGS 2	(1260)	UR
PENNSYLVANIA		
BEAVER VALLEY 1	(852)	LIC
BEAVER VALLEY 2	(852)	UC
PEACH BOTTOM 2	(1065)	LIC
PEACH BOTTOM 3	(1065)	LIC
THREE MILE ISLAND 1	(819)	LIC
THREE MILE ISLAND 2	(906)	LIC
LIMERICK 1	(1065)	UC
LIMERICK 2	(1065)	UC
SUSQUEHANNA 1	(1052)	UC/OL
SUSQUEHANNA 2	(1052)	UC/OL
RHODE ISLAND		
NEW ENGLAND 1	(1150)	UR
NEW ENGLAND 2	(1150)	UR

STATE	MWE	STAGE
SOUTH CAROLINA		
OCONEE 1	(887)	LIC
OCONEE 2	(887)	LIC
OCONEE 3	(887)	LIC
ROBINSON 2	(700)	LIC
CATAWBA 1	(1145)	UC
CATAWBA 2	(1145)	UC
CHEROKEE 1	(1280)	UC
CHEROKEE 2	(1280)	UC
CHEROKEE 3	(1280)	UC
SUMMER 1	(900)	UC/OL
TENNESSEE		
HARTSVILLE 1	(1205)	UC
HARTSVILLE 2	(1205)	UC
HARTSVILLE 3	(1205)	UC
HARTSVILLE 4	(1205)	UC
SEQUOYAH 1	(1140)	UC/OL
SEQUOYAH 2	(1140)	UC/OL
WATTS BAR 1	(1165)	UC/OL
WATTS BAR 2	(1165)	UC/OL
PHIPPS BEND 1	(1220)	UC
PHIPPS BEND 2	(1220)	UC
CLINCH RIVER	(350)	UR
TEXAS		
COMANCHE PEAK 1	(1150)	UC/OL
COMANCHE PEAK 2	(1150)	UC/OL
SOUTH TEXAS 1	(1250)	UC/OL
SOUTH TEXAS 2	(1250)	UC/OL
ALLENS CREEK 1	(1150)	UR
VERMONT		
VERMONT YANKEE	(514)	LIC
VIRGINIA		
NORTH ANNA 1	(907)	LIC
NORTH ANNA 2	(907)	UC/OL
NORTH ANNA 3	(907)	UC
NORTH ANNA 4	(907)	UC
SURRY 1	(822)	LIC
SURRY 2	(822)	LIC
CENTRAL VIRGINIA 1	(1150)	A/O
CENTRAL VIRGINIA 2	(1150)	A/O
WASHINGTON		
WASH. NUCLEAR 1	(1267)	UC
WASH. NUCLEAR 2	(1103)	UC/OL
WASH. NUCLEAR 4	(1267)	UC
WASH. NUCLEAR 3	(1242)	UC
WASH. NUCLEAR 5	(1242)	UC
SKAGIT 1	(1277)	UR
SKAGIT 2	(1277)	UR
WISCONSIN		
KEWAUNEE	(535)	LIC
POINT BEACH 1	(497)	LIC
POINT BEACH 2	(497)	LIC
LACROSSE	(50)	LIC
TYRONE	(1150)	UC
HAVEN	(900)	UR

LIC=LICENSES TO OPERATE
UC/OL=UNDER CONSTRUCTION/UNDER OL REVIEW
UC=UNDER CONSTRUCTION/OL APPLICATION NOT RECEIVED
UR=UNDER CP REVIEW
UR/LWA=UNDER CP REVIEW/LWA ISSUED
A/O=ANNOUNCED OR ORDERED - NOT ON MAP.