

UNITED STATES GOVERNMENT

Memorandum

JUN 12 1964

TO : Files DATE:
 THRU Roger S. Boyd, Chief, Research & Power Reactor
 Safety Branch, Division of Reactor Licensing

FROM : B. K. Grimes, Research & Power Reactor Safety *B.K. Grimes*
 Branch, Division of Reactor Licensing

SUBJECT: OYSTER CREEK REACTOR MEETING ON THE PRELIMINARY SAFEGUARDS
 SUMMARY REPORT

50-219

The meeting was held in Bethesda on April 28 and 29 with the following persons in attendance:

M. Gaske	DRL	H. Denton	CO
J. Murphy	DRL	M. Mann	REG
D. Knuth	DRL	C. L. Miller	G.E.
B. Grimes	DRL	W. Schulthers	G.E.
I. Spickler	DRL	J. Holtzclaw	G.E.
J. Newell	DRL	R. B. Lemon	G.E.
R. Boyd	DRL	R. A. Huggins	G.E.
D. Sullivan	DRL	D. H. Kregg	B&R
D. Muller	DRL	W. H. Lowe	JCP&L
O. Frizzell	DSS	D. E. Hetrick	JCP&L
R. Maccary	DSS	D. R. Rees	JCP&L
D. H. Slade	Weather Bureau	T. J. McCluskey	JCP&L
L. Kornblith	CO	J. Pickard	JCP&L
F. J. Long	CO		
F. J. Nolan	CO		

A general summary of the plant design was presented by the applicant. It was indicated that new features incorporated in this reactor included: (1) the use of internal steam separators, (2) recirculation flow control to control reactor power level, (3) greater worth control rods on a 12 inch lattice spacing and (4) the use of in-core startup instrumentation. General Electric also indicated that dry sand was being considered for the reactor biological shield.

G. E. maintained that the plant was similar to the proposed Bodega Bay reactor and that they felt that no further research and development was necessary to construct a safe plant of this size. However, they indicated that research and development was being continued on the rod worth minimizer and in other vital areas to insure that the reactor incorporated the best and latest technology available. The staff indicated that they felt continued research and development might be necessary to insure the safety of this large boiling water reactor.

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In the general discussion, which covered each section of the Safeguards Report, the following points were brought out:

1. Atmospheric diffusion studies at the site had not been contemplated although some studies on sea breeze effects were planned by the Weather Bureau in Atlantic City.
2. Foundation plans, based on the results of borings being carried out, will be firm~~ed~~ up by June.
3. The staff inquired as to the basis for the normal stack release and for the planned 30 minute holdup time. General Electric stated that this system was that used and found to be adequate at Dresden, and General Electric considered, on this basis, that it would be adequate for the Oyster Creek design.
4. The 2.5% self-imposed limit on control rod worth was stated to be based on Spert and Treat tests which had been conducted. The staff expressed interest in the upper limit of reactivity insertion which the core and other reactor systems could stand.
5. G. E. stated that the oxygen concentration was not a primary concern in stress corrosion cracking of the cladding and that an adequate corrosion allowance was made in the reactor design.
6. In the discussion of the recirculating system, G. E. stated that the total change of power and the rate of change of power would be the basic parameters guaranteed to Jersey Central. A safety analysis had not been carried out on this system. The staff pointed out that a safety analysis should be conducted on each reactor system.
7. The release of liquid effluent to the bay will probably be limited by reconcentration in sea life rather than by limiting concentrations specified in 10 CFR 20. Reconcentration studies are presently under way.
8. The highest burnup in a fuel assembly will be 25,000 MWD/ton and the peak in the assembly 30,000 MWD/ton, for an average burnup of 15,000 MWD/ton.

9. The core spray will be operated by positive displacement pumps.
10. Xenon shifts are considered by G. E. to be a minor problem based on past operating experience.
11. The emergency power system, a single diesel, supplies power to certain selected systems. Transfer to a backup system will be automatic in the event that an emergency system does not operate.
12. The method of test for the drywell and absorption chamber design pressure leak rates has not been determined.