

APR 26 1978

50-4161417

POOR ORIGINAL

MEMORANDUM FOR: Richard H. Vollmer, Assistant Director for Site Analysis, DSE

FROM: James F. Costello, Task Manager, A-33

SUBJECT: TORNADO DAMAGE AT GRAND GULF SITE

The tornado which damaged the Grand Gulf plant during the night of April 17 will probably be classified as F1 or F2 on the Fujita scale. Thus, it is not surprising that the visit to the site, on April 19, by an NRC team consisting of myself, H. Fontecilla of DOR and C. R. McFarland of Region II, yielded no evidence of motion of significant missiles. Damage at the plant, while of considerable dollar value, was consistent with peak wind velocities in the 100-150 mph range.

The attached sketch shows, approximately, the direction of the tornado and the major damage areas. Aerial photographs will soon be available in a report from Professor Fujita, of the University of Chicago, who surveyed the site as part of an investigation of the three tornadoes reported in southwestern Mississippi that night. The areas suffering major direct wind damage were the batch plant and switchyard. No significant missiles were noted in these areas. Busbars lay where they fell and only sheet metal and trailers were displaced significant distances from the batch plant location. Damage to the cooling tower, containment, and turbine building of Unit 1 was caused by falling construction cranes--not wind forces or missiles.

Some input to Task Action Plan A-33 may be gotten from an analysis of happenings in the upper laydown area to be performed by Professor McDonald of Texas Tech University. Some moderate motion of large fiberglass pipes occurred there which, when combined with final wind-speed estimates, may shed some light on incipient motion of missiles of pipe variety.

CONTACT: J. F. Costello
443-5420

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Finally, I should say that the cooperation we received from Mississippi Power & Light officials was excellent and that Bob McFarland, of Region II, really extended himself to be helpful to us.

Original signed by
J. F. Costello

James F. Costello
Engineering Methodology Standards
Branch
Office of Standards Development

Enclosure:
Sketch

cc w/encl: H. Fontecilla, DOR
C. R. McFarland, Region II
I. Sihweil, DSS
D. Bunch, DSE
L. Beratan, SD
R. Abbey, RES
C. Thomas, DPM
J. Levine, DSE

bcc w/encl: R. Minogue
R. Smith
G. Arlotto
M. Kehnemuyi
V. Panciera
J. Costello

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4/25/78	SD:EMSB				
OFFICE ▶	JCostello:75				
SURNAME ▶	35420				
DATE ▶	4/26/78 <i>JFC</i>				

POOR ORIGINAL

LEVEL

UNCLASSIFIED
DATE 05-18-2010
BY 60322/UC/MLP
REASON FOR CLASSIFICATION
EXEMPT FROM AUTOMATIC
DOWNGRADING AND
DECLASSIFICATION
AUTHORITY
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