

NRC PDR



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

DEC 01 1978

Docket No. 50-339

X

APPLICANT: Virginia Electric & Power Company
FACILITY: North Anna Power Station, Unit No. 2
SUBJECT: SUMMARY OF NOVEMBER 29, 1978 MEETING TO DISCUSS MATTERS
RELATED TO RADIOLOGICAL SHIELDING AROUND THE UNIT 2
REACTOR VESSEL

We met with representatives of the Virginia Electric and Power Company and Stone and Webster Engineering Corporation in Bethesda, Maryland on November 29, 1978 to discuss VEPCO's proposed design for the radiological shielding around the Unit 2 reactor pressure vessel. The attendees are listed in the Enclosure.

Significant points discussed are summarized below:

- (1) The applicant made a detailed presentation of its proposed design of the radiological shielding around the reactor pressure vessel nozzle areas. They stated that the shielding will consist of (1) a collar around the nozzle area of the vessel and (2) saddles that will be draped over the top of the six pressure vessel nozzles. (See Figures 1, 2 and 3 which are attached). The shielding material will be a silicon elastomer loaded with boron carbide. X
- (2) The applicant presented a comparison of calculated neutron dose rates with measurements at North Anna Unit 1 (see Figure 4). In addition the applicants presented the calculated neutron dose rates expected in Unit 2 with the shielding installed (see Figure 5).
- (3) The applicant stated that they intend to use the RELAP 4 Mod 5 Code to determine cavity pressures in the event of a postulated pipe break.
- (4) VEPCO indicated that they would submit their proposal of the shielding design by January 1979. They also indicated that they intend to have the shielding installed prior to issuance of the Unit 2 operating license.

Alexander Dromerick

Alexander Dromerick, Project Manager
Light Water Reactors Branch No. 3
Division of Project Management

Enclosures:
As Stated

cc w/enclosures: See next page

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DEC 01 1978

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ENCLOSURE

NORTH ANNA POWER STATION, UNIT 2

DOCKET NO. 50-339

MEETING OF NOVEMBER 29, 1978

NRC

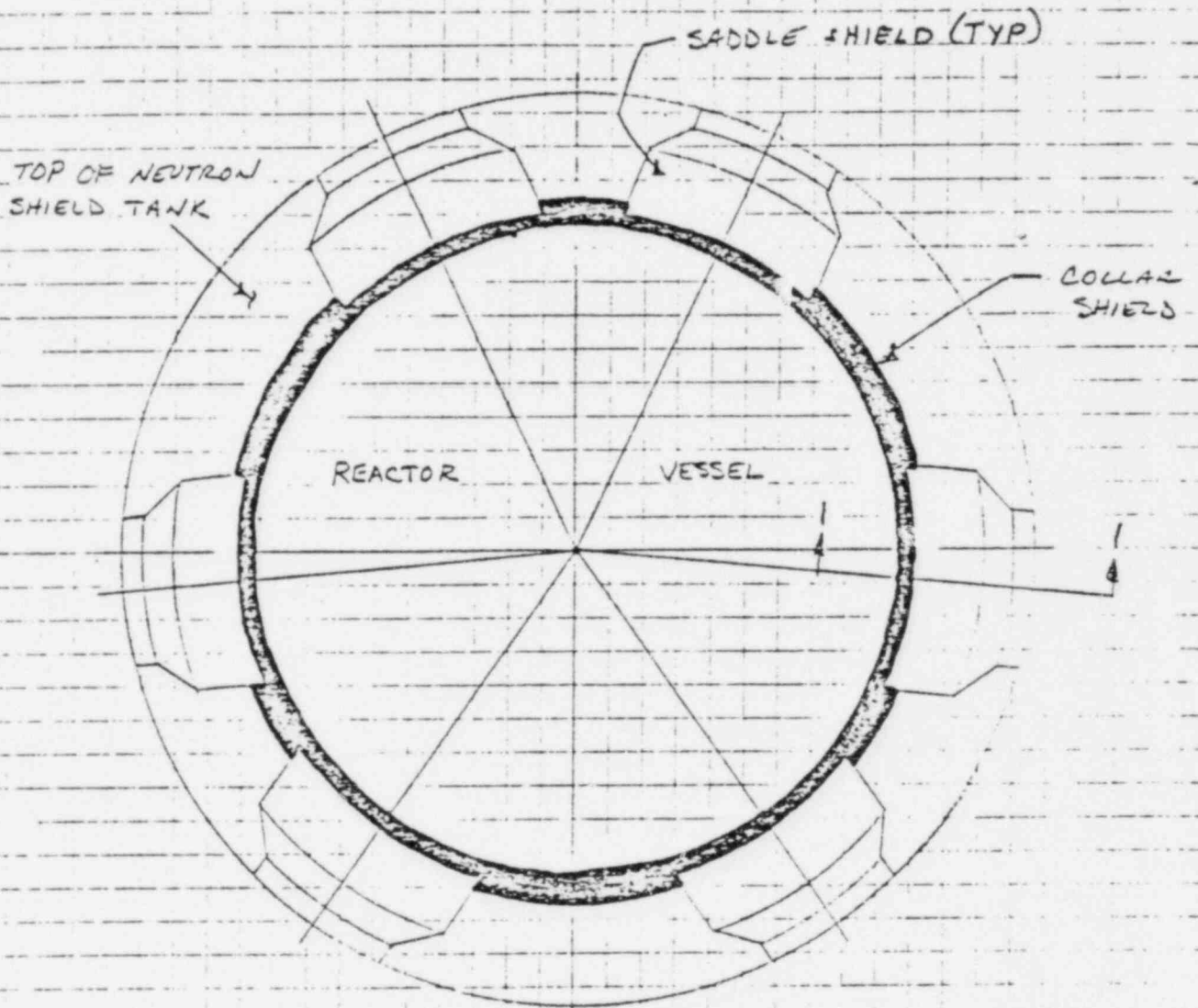
A. Dromerick
F. Eltawila
J. Shapaker
T. Murphy
O. Parr

VEPCO

W. Spencer
J. Harris
E. Greycheck
M. Mearhoff

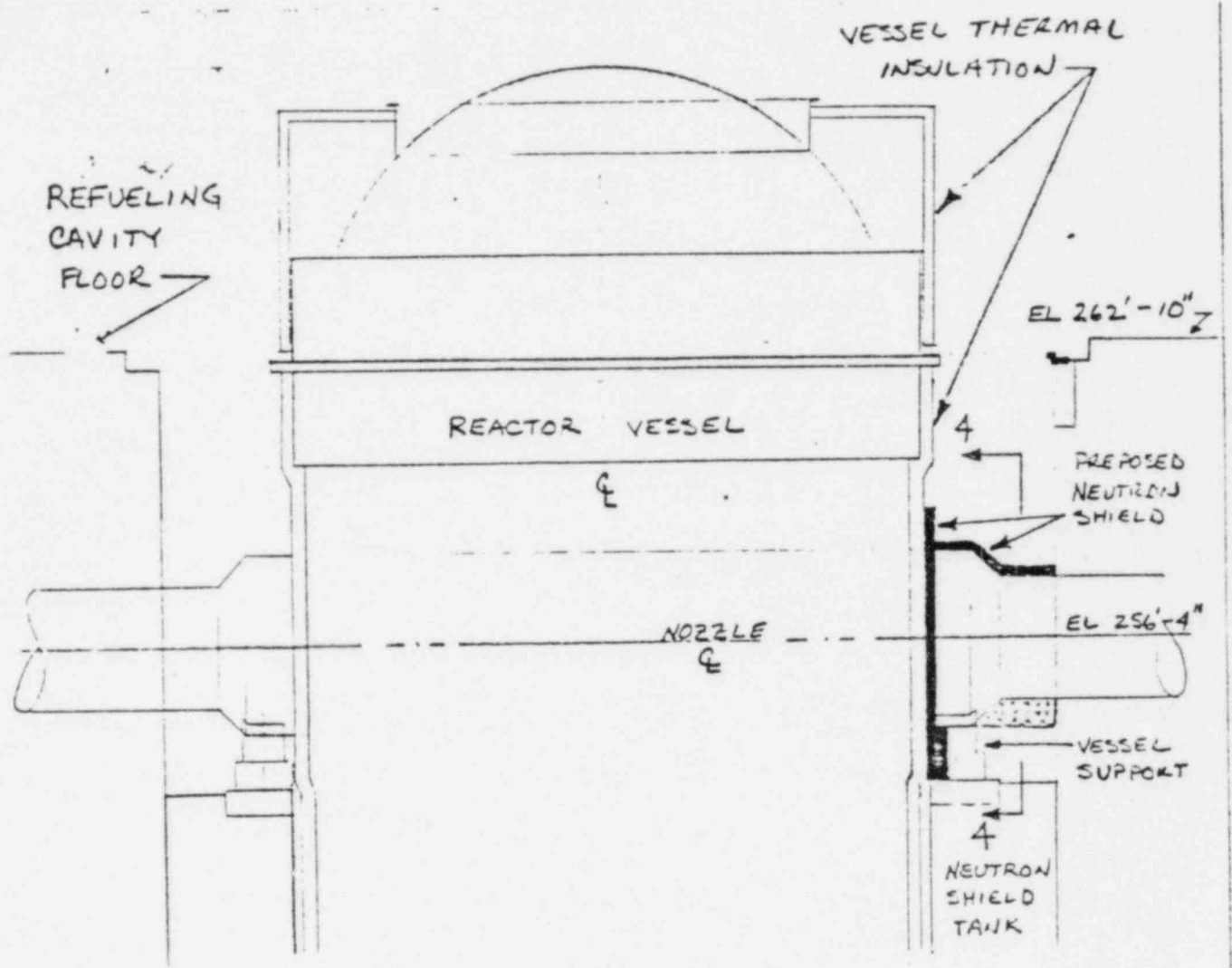
Stone & Webster

E. Warman
N. Goldstein
S. Tahan
R. Bradbury
J. Krechting
W. Dodson
J. Stauder



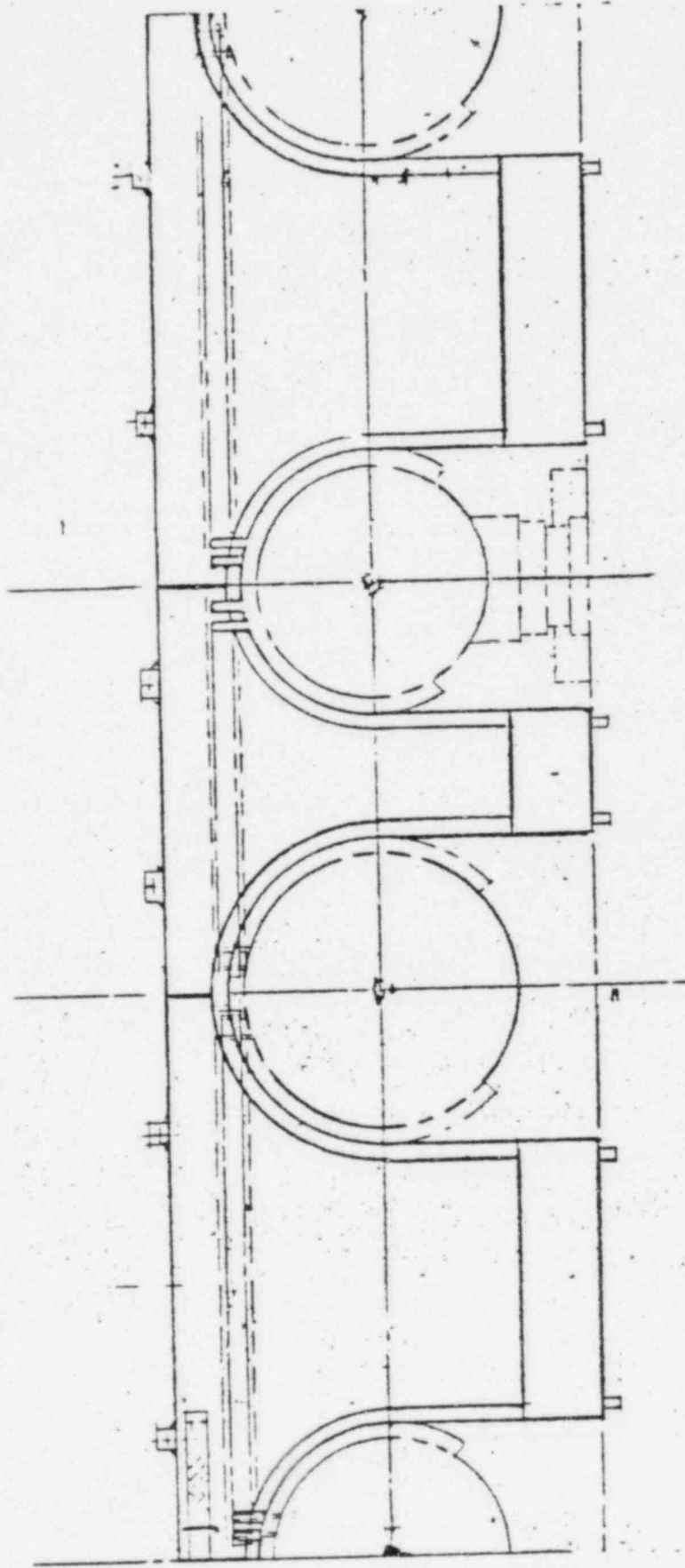
PLAN VIEW

COLLAR NEUTRON SHIELD AND
CONTOURED SADDLES IN PLACE



ELEVATION VIEW

LOCATION OF PREPOSED NEUTRON SHIELD



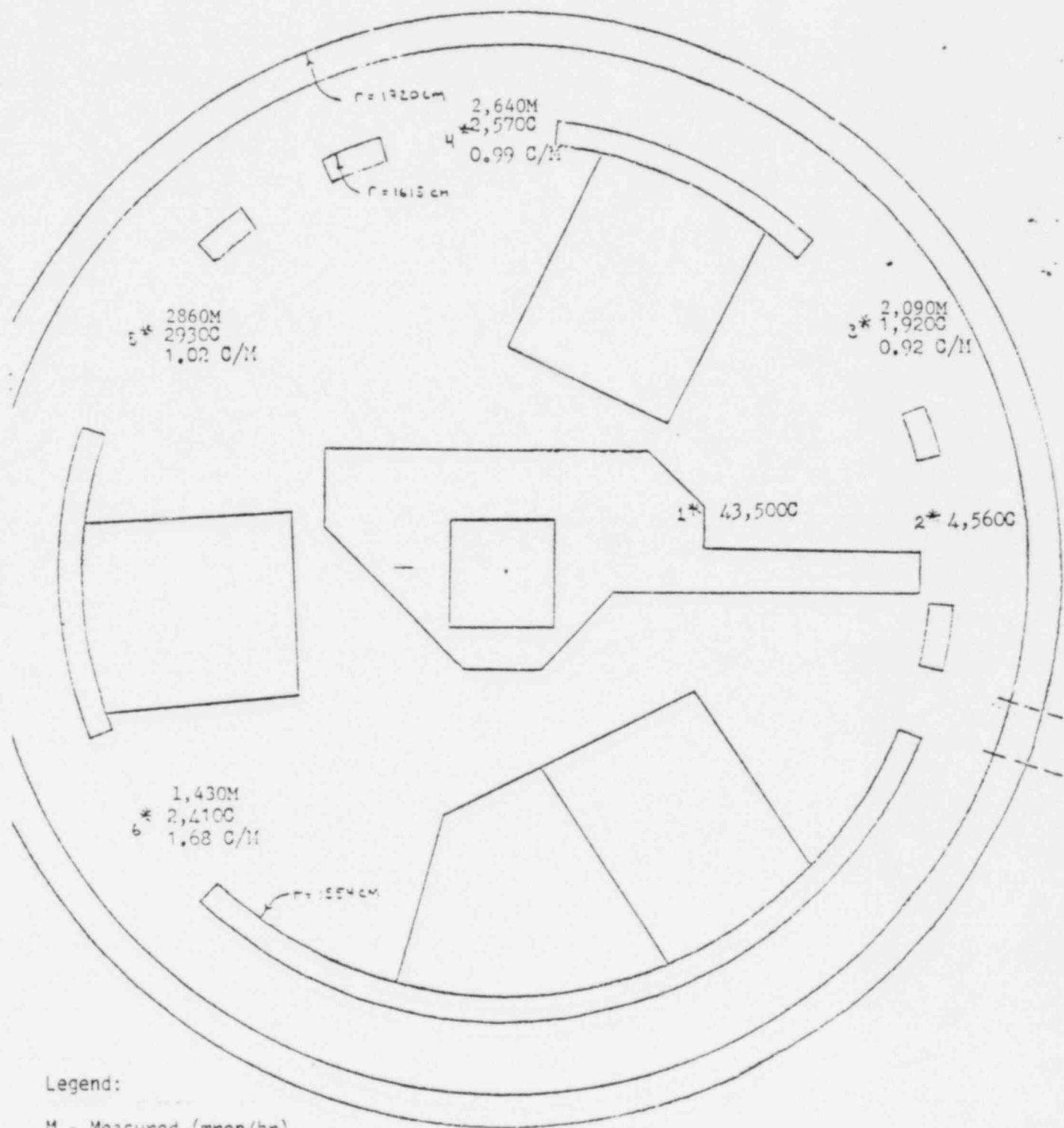
DEVELOPED ELEVATION

4-4

FIG 3

-4-

FIGURE 4
COMPARISON OF CALCULATED NEUTRON DOSE RATES
WITH MEASUREMENTS AT NORTH AREA UNIT 1

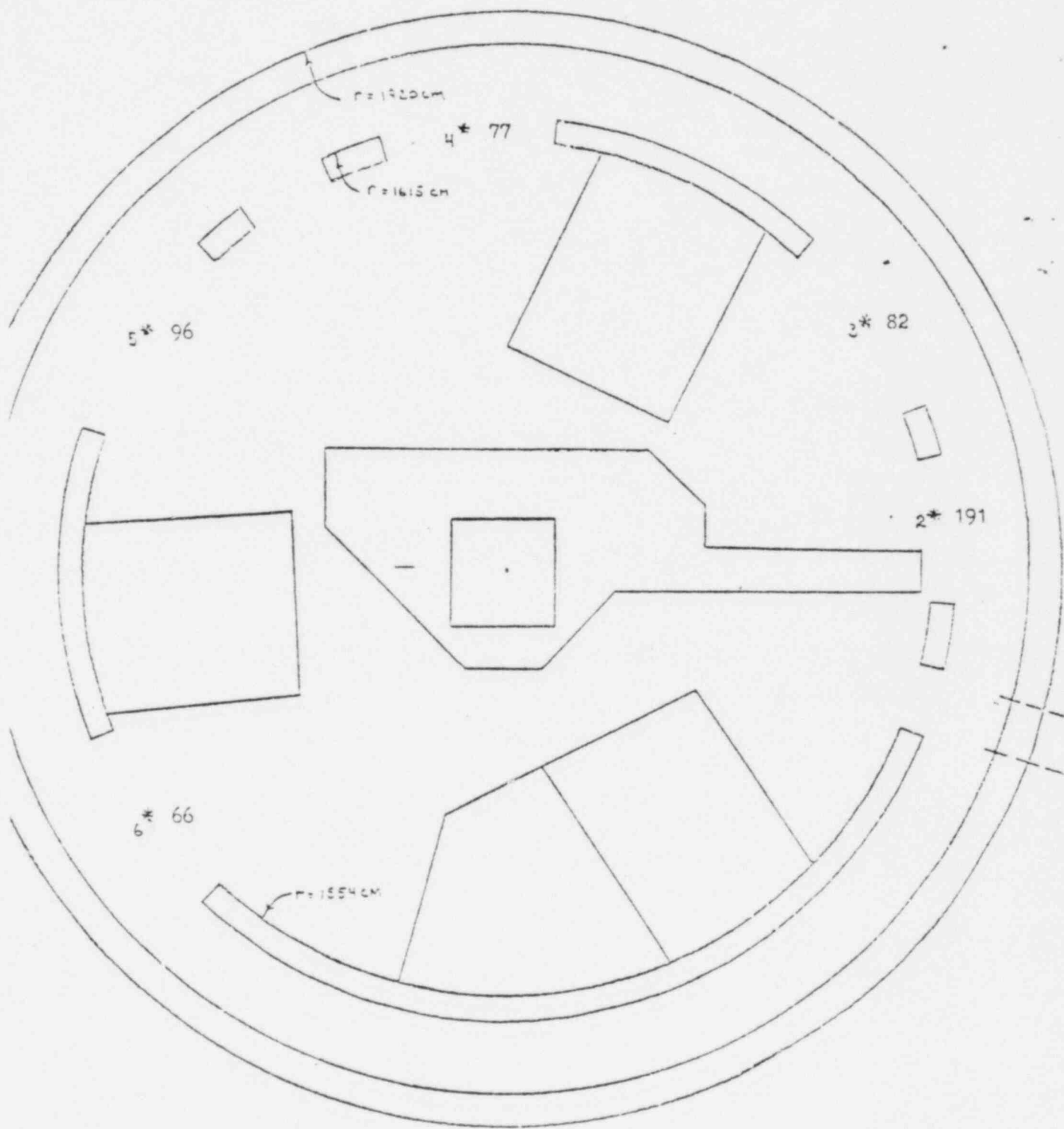


Legend:

- M - Measured (mren/hr)
- C - Calculated (mren/hr)
- C/M - Calculated/Measured Ratio

FIGURE 5

CALCULATED NEUTRON DOSE RATES WITH SUPPLEMENTARY SHIELDING (mrem/hr)



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