2) Cold Shutdown

The reactor is in the cold shutdown condition when the reactor has a shutdown margin of at least 1 percent $\Delta k/k$ and reactor coolant temperature is 200°F.

3) Refueling Shutdown

The reactor is in the refueling shutdown condition when the reactor is subcritical by at least 5 percent $\Delta k/k$ and T_{avg} is 140°F. A refueling shutdown refers to a shutdown to move fuel to and from the reactor core.

4) Shutdown Margin

Shutdown margin is the instantaneous amount of reactivity by which the reactor core would be subcritical if all withdrawn control rods were tripped into the core but the highest worth withdrawn RCCA remains fully withdrawn. If the reactor is shut down from a power condition, the hot shutdown temperature should be assumed. In other cases, no change in temperature should be assumed.

h. Power Operation

The reactor is in power operating condition when the reactor is critical and the average neutron flux of the power range instrumentation indicates greater than 2 percent of rated power.

i. Refueling Operation

Refueling operation is any operation involving movement of core components (those that could affect the reactivity of the core) within the containment when the vessel head is removed.

j. Rated Power

Rated power is here defined as a steady state reactor core output of 1518.5 MWT.*

k. Thermal Power

Thermal power is defined as the total core heat transferred from the fuel to the coolant.

* For Unit 2: If the Reactor Coolant System raw measured total flow rate is <179,000 gpm but ≥169,500 gpm, Unit 2 shall be limited to ≤98% rated power.

G. OPERATIONAL LIMITATIONS

The following DNB related parameters shall be maintained within the limits shown during Rated Power operation:

1. T_{avg} shall be maintained below 578°F.

2. Reactor Coolant System (RCS) pressurizer pressure shall be maintained:
   a. Unit 1: ≥2205 psig during operation at 2250 psia, or
      ≥1955 psig during operation at 2000 psia.
   b. Unit 2: ≥1955 psig during operation at 2000 psia.

3. Reactor Coolant System raw measured Total Flow Rate (See Basis).

   a. Unit 1 ≥ 181,800 gpm Unit 1
   b. Unit 2 ≥ 174,000 gpm Unit 2*

Basis:

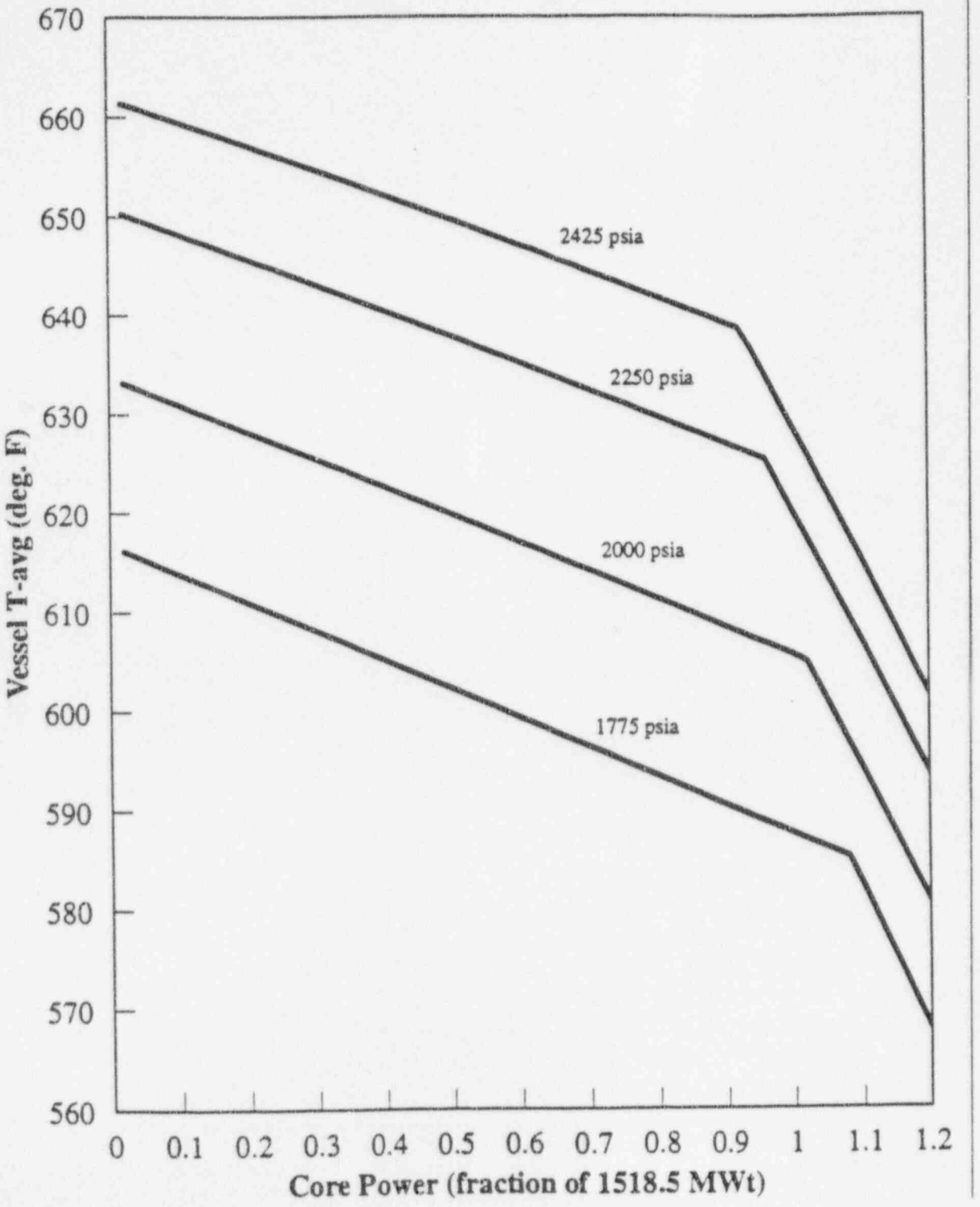
The reactor coolant system total flow rate for Unit 1 of 181,800 gpm is based on an assumed measurement uncertainty of 2.1 percent over thermal design flow (178,000 gpm). The reactor coolant system total flow rate for Unit 2 ~~of~~ at rated power is 174,000 gpm. This is based on an assumed measurement uncertainty of 2.1 percent over a thermal design flow of 170,400 gpm. However, Unit 2 is analyzed to support operation with a reactor coolant system total flow rate limit of 169,500 gpm. This is based on an assumed measurement uncertainty of 2.1 percent over a thermal design flow of 166,000 gpm. If the Unit 2 RCS raw measured total flow rate is less than 174,000 gpm but greater than or equal to 169,500 gpm, operation is limited to less than or equal to 98% rated power as described in the note to Specification 15.3.1.G.3.b. The raw measured flow is based upon the use of normalized elbow tap differential pressure which is calibrated against a precision flow calorimetric at the beginning of each cycle.

* For Unit 2: If the Reactor Coolant System raw measured total flow rate is <174,000 gpm but ≥169,500 gpm, Unit 2 shall be limited to ≤ 98% rated power.

Figure 15.2.1-2

REACTOR CORE SAFETY LIMITS

POINT BEACH UNIT 2



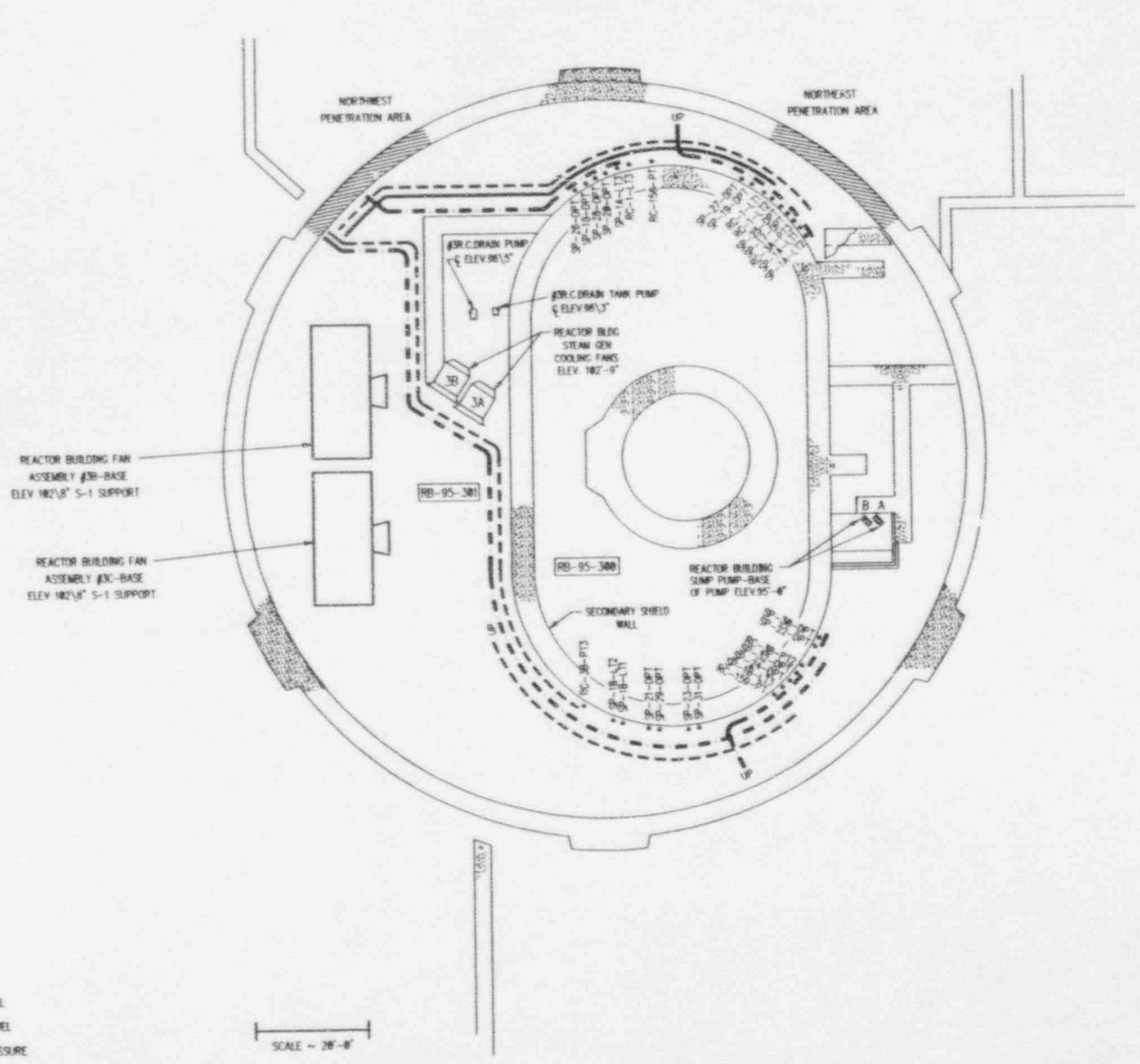


FIGURE 1
REACTOR BUILDING
BASEMENT FLOOR ELEV. 75'-8" AND 95'-8"

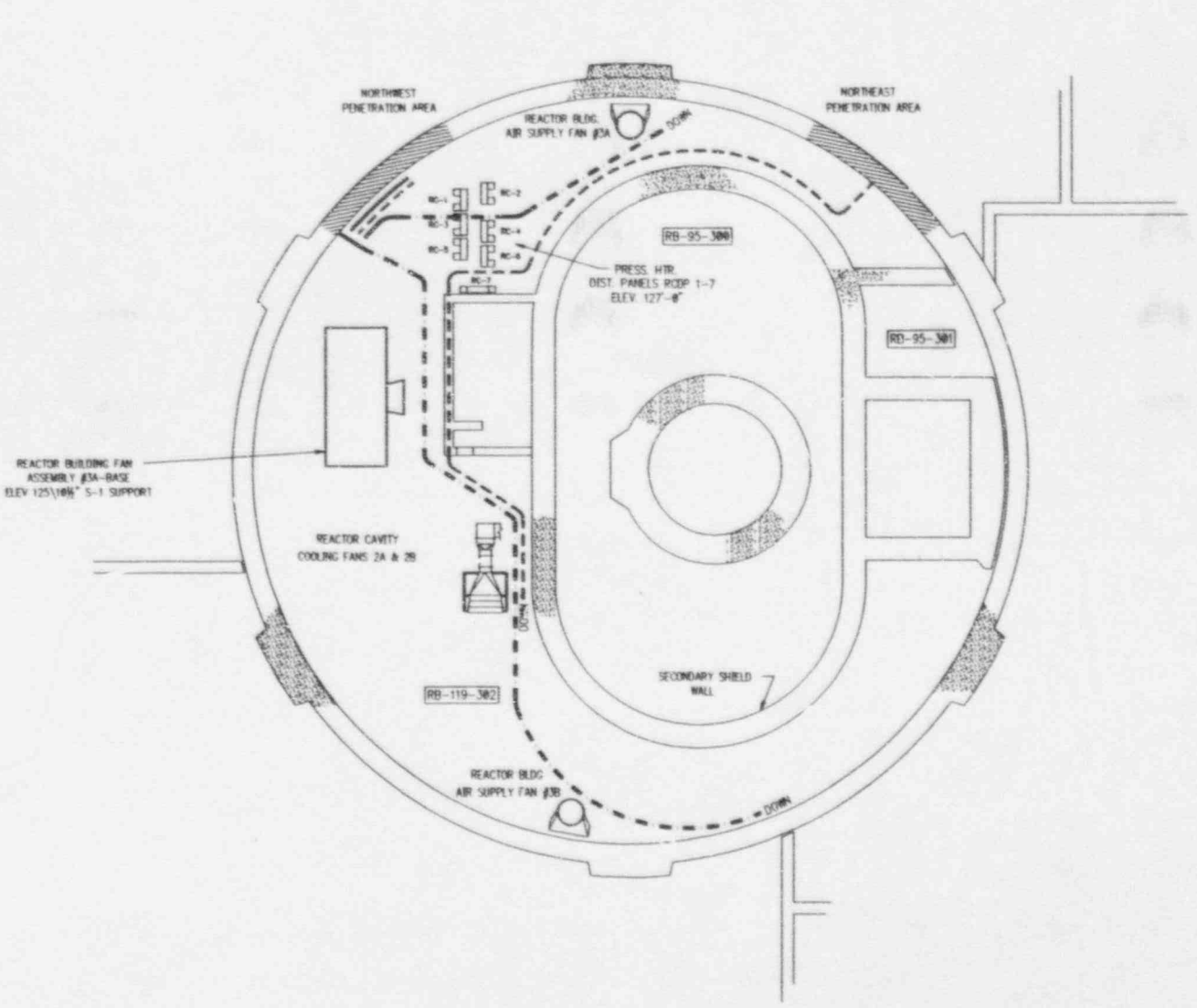
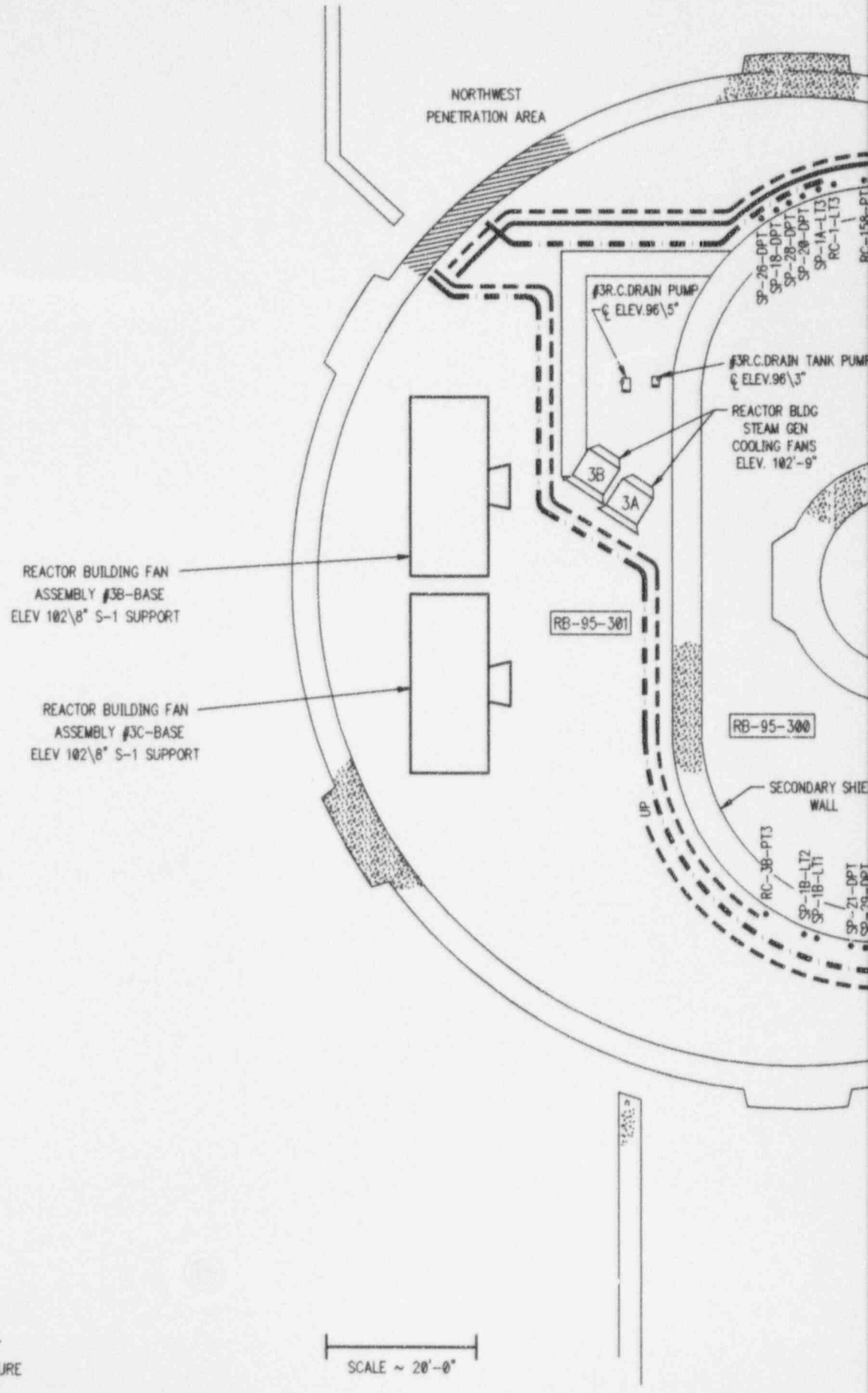


FIGURE 2
REACTOR BUILDING
MEZZANINE FLOOR ELEV. 119'-8"


NORTHWEST
PENETRATION AREA
#3R.C.DRAIN PUMP
℄ ELEV.96\5"
#3R.C.DRAIN TANK PUMP
℄ ELEV.96\3"
REACTOR BLDG
STEAM GEN
COOLING FANS
ELEV. 102'-9"
3B
3A
REACTOR BUILDING FAN
ASSEMBLY #3B-BASE
ELEV 102\8" S-1 SUPPORT
REACTOR BUILDING FAN
ASSEMBLY #3C-BASE
ELEV 102\8" S-1 SUPPORT
RB-95-301
RB-95-300
SECONDARY SHIE
WALL
UP
SP-26-DPT
SP-18-DPT
SP-28-DPT
SP-20-DPT
SP-1A-LT3
RC-1-LT3
RC-3B-PT3
SP-1B-LT2
SP-1B-LT1
SP-21-DPT
SG LEVEL
PZR LEVEL
RC PRESSURE
SCALE ~ 20'-0"

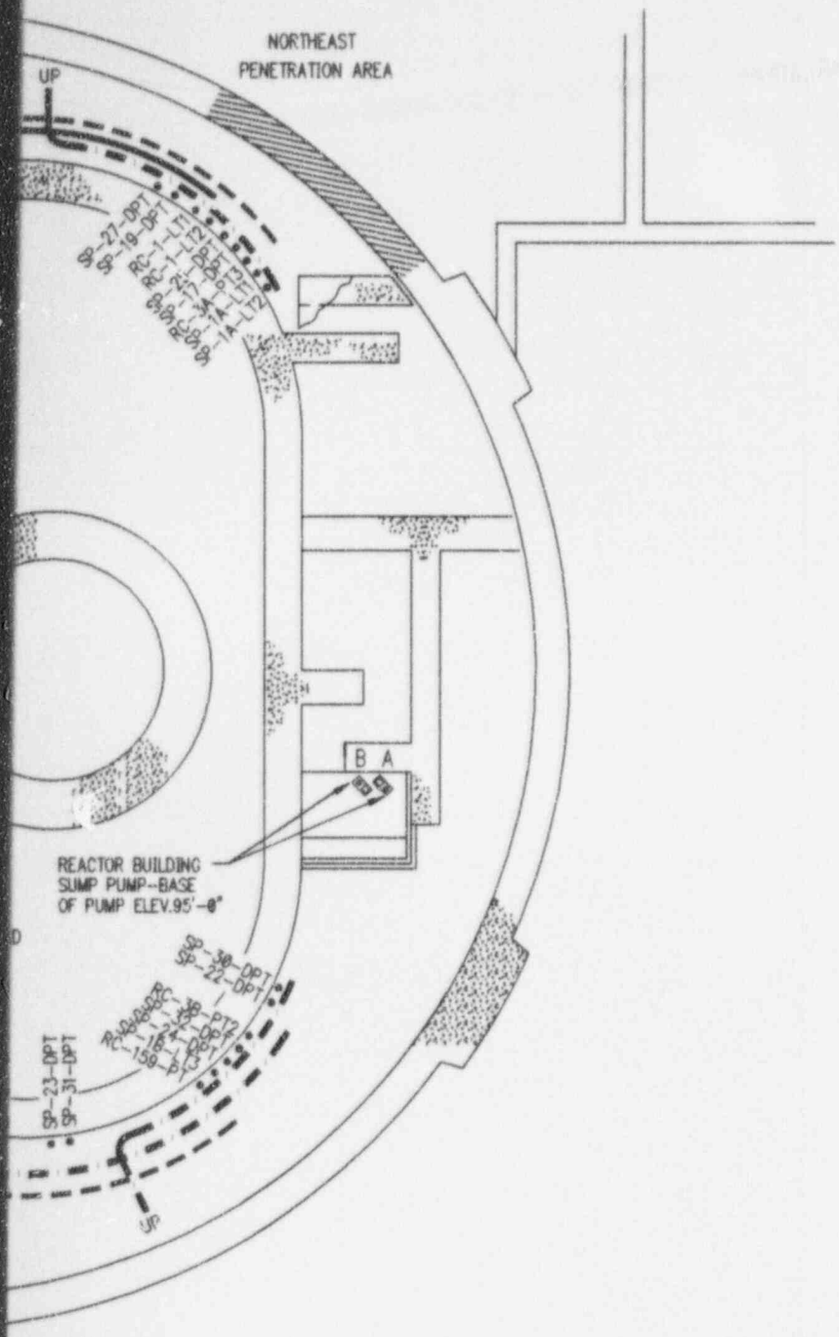


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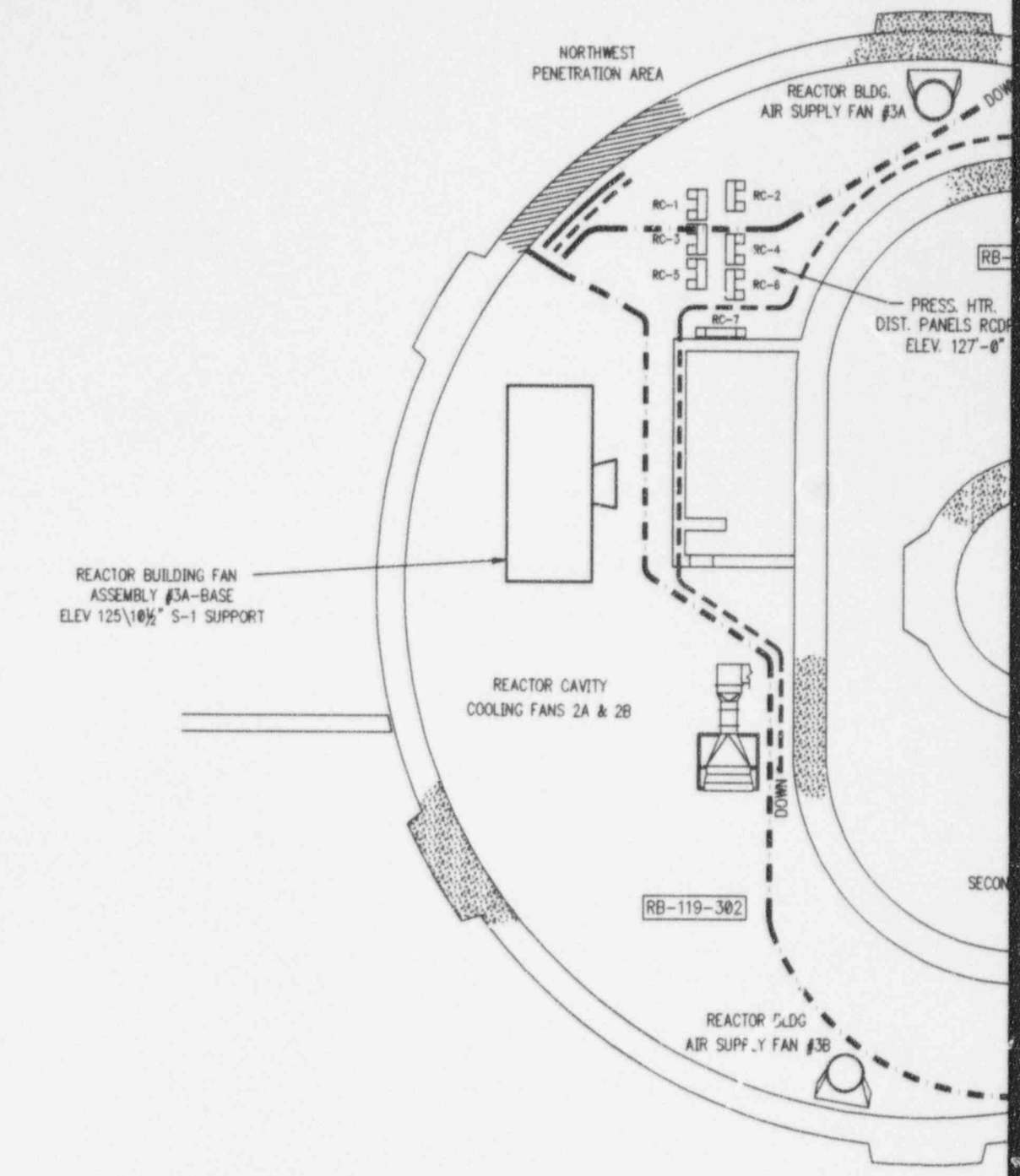
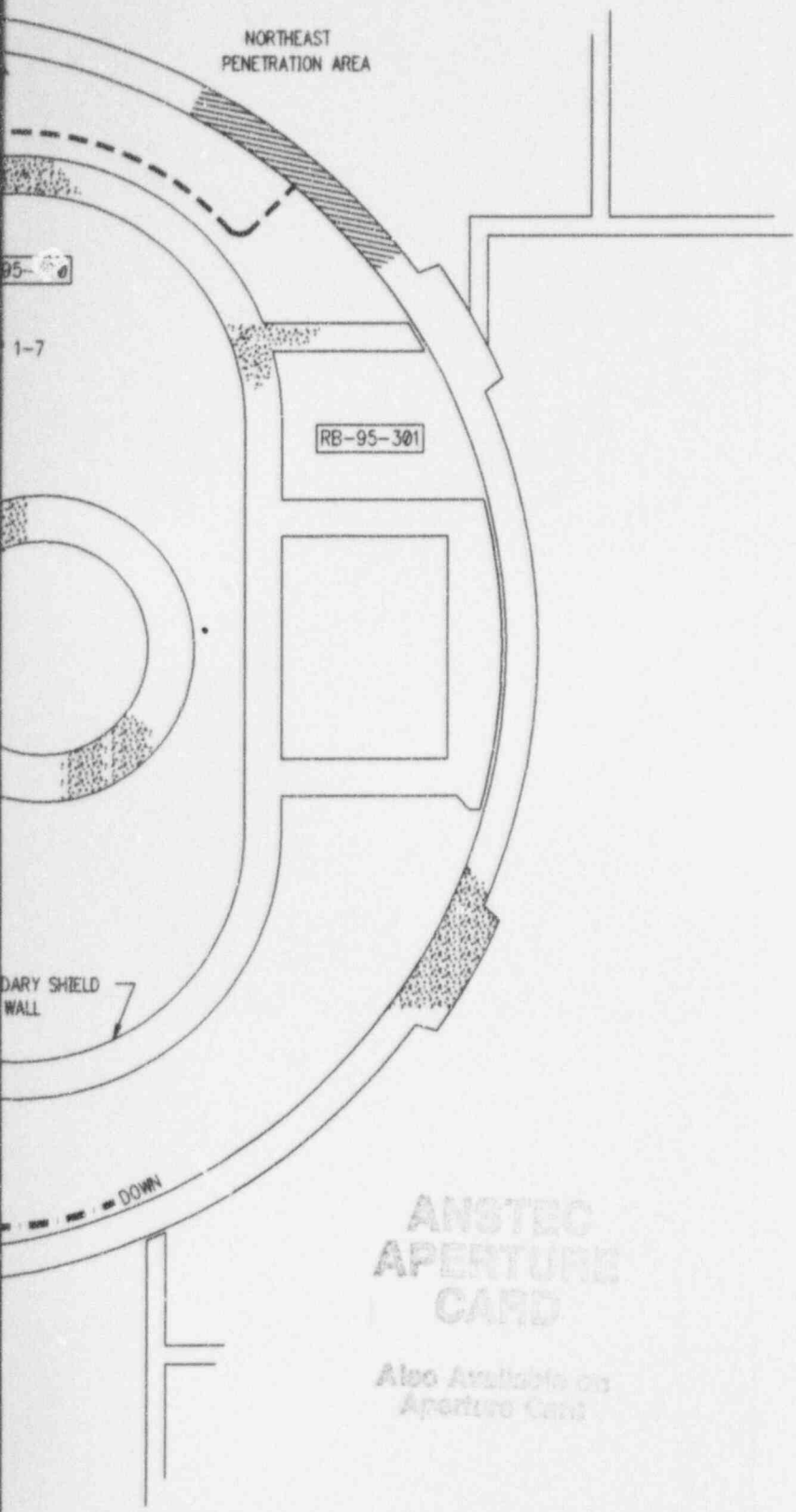
FIGURE 1
REACTOR BUILDING
BASEMENT FLOOR ELEV. 75'-0" AND 95'-0"


NORTHWEST
PENETRATION AREA
REACTOR BLDG.
AIR SUPPLY FAN #3A
RC-1
RC-2
RC-3
RC-4
RC-5
RC-6
RC-7
PRESS. HTR.
DIST. PANELS RCDP
ELEV. 127'-0"
REACTOR BUILDING FAN
ASSEMBLY #3A-BASE
ELEV 125\10½" S-1 SUPPORT
REACTOR CAVITY
COOLING FANS 2A & 2B
RB-119-302
REACTOR BLDG
AIR SUPPLY FAN #3B
SG LEVEL
PZR LEVEL
RC PRESSURE
SCALE ~ 20'-0"



9510240108-02

FIGURE 2
REACTOR BUILDING
MEZZANINE FLOOR ELEV. 119'-0"