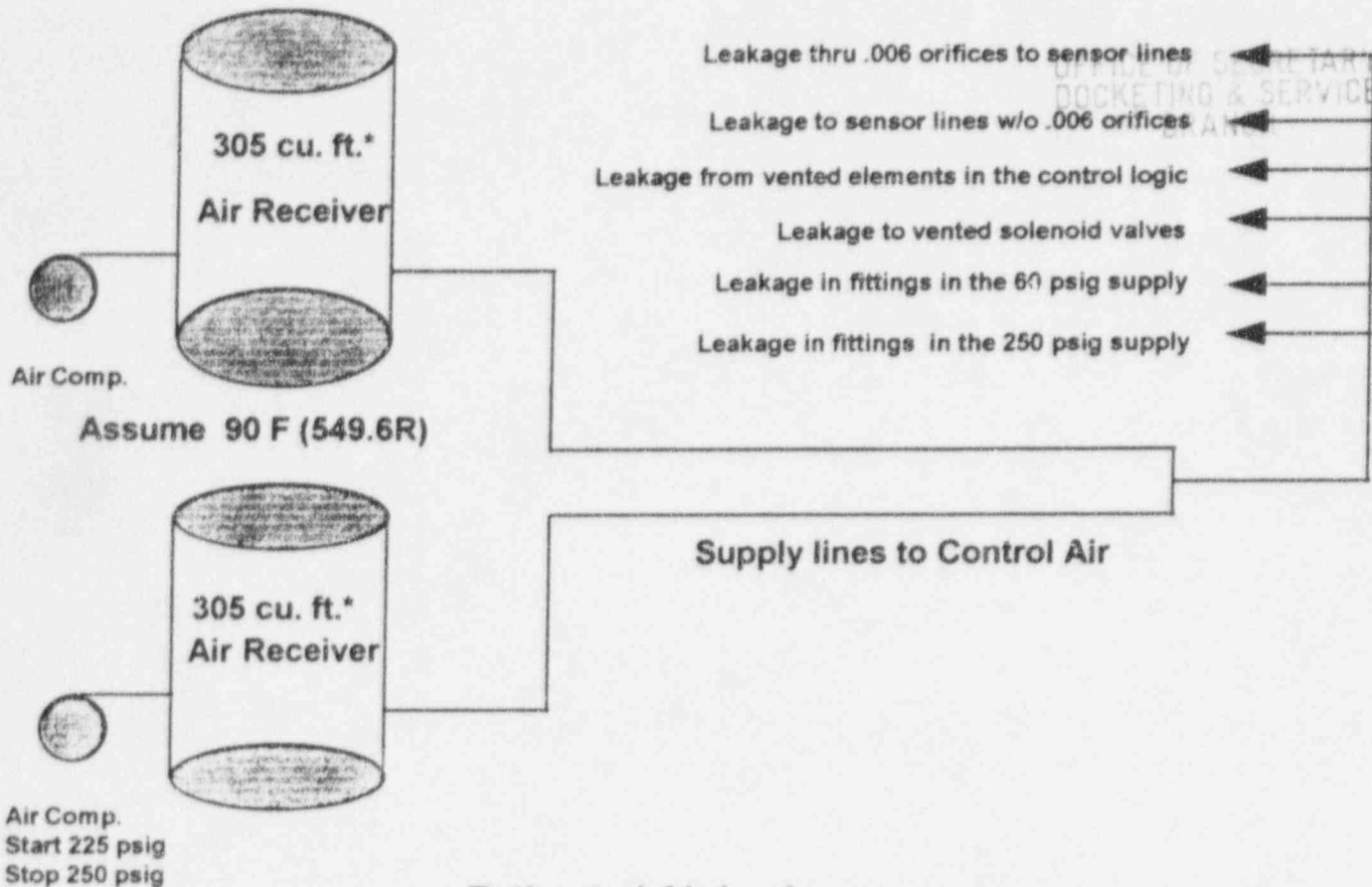


Estimate of DG Daily Air Leakage

ESTED
USNRC

Potential Leakage Locations 95 OCT 20 P4:50



Estimated Air Leakage

1 atm = 14.7 psia

225 psig = 239.7 psia = 16.3 atm. , 250 psig = 264.7 psia = 18.0 atm.

scf = standard cubic feet (at STP)

scf per tank @ 225 psig = $(16.3 \text{ atm}) \times 305 \text{ cu. ft.} \times 491.6 \text{ R} / 549.6 \text{ R} = 4447 \text{ scf.}$ scf per tank @ 250 psig = $(18.0 \text{ atm}) \times 305 \text{ cu. ft.} \times 491.6 \text{ R} / 549.6 \text{ R} = 4911 \text{ scf.}$

Volume added per cycle = 464 scf

Compressor capacity = 76 scfm*

Running time per cycle = $464 \text{ scf} / 76 \text{ scfm} = 6.1 \text{ minutes}$

Assume each compressor cycles on 1 time per 8 hour shift to make up for leakage:

This is 6 additions of 464 scf of air per day = 2784 scf / day

= 116 scf / hour

= 1.93 scf / minute

= .032 scf / second

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PDR ADOCK 05000424
G PDR

NUCLEAR REGULATORY COMMISSION

Docket No. 50-424/425-OL A-1 EXHIBIT NO. II-261

In the matter of Georgia Power Co. et al., Vogtle Units 1 & 2

☐ Staff ☐ Applicant ☒ Intervenor ☐ Other☐ Identified ☒ Received ☐ Rejected Reporter SD

Date 9/19/95 Witness HILL and WARD

* Data from FSAR Table 9.5.6-1 (Board Exh. #3)