

Davis

To: R. Bryan, Westlake, LA

From: P. F. Fetizanan, Houston, TX

Date: January 30, 1985

Subject: INCINERATOR GAS TIP EVALUATION--VCM PLANT

Interoffice
Communication

VISTA

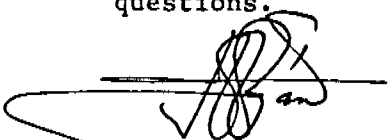
The operating pressure of the wet and dry vent headers can be significantly reduced by changing the "gap" in the incinerator gas tip from 9/16" to 13/16". A sketch of this gas tip and the estimated pressure drop are shown in Figs. 1 and 2, respectively. Reducing the header pressures would allow operation of the tank farm blowers at lower discharge pressure and increase the vent system's surge capacity during upset condition.

The acid gas tip was originally designed to handle only the dry vent. Burner ring assembly modifications in the Liquid Flame Arrestor  NO. project, however, eliminated the wet vent nozzle and the combined vents now enter the combustion chamber through this gas tip. The resulting vent header pressure increase had required some equipment modifications. The velocity through the tip at a minimum flow of 5000 SCFH is estimated at approximately 12 ft/sec. John Zink had estimated a flame propagation velocity of less than 5 ft/sec. for the system.

We recommend this dimension change be incorporated in the next tip ordered. Howell Industries, Sulphur, LA, currently fabricates this item. Although the recently modified high-speed Paxton blowers are operating satisfactorily, long term operation may dictate a need to reduce the RPM to minimize maintenance problems. Speed reduction would be possible after the modified tip is installed.

OR HIGHER ALLOWABLE
P INCR. IN
VENT HEADER

Please give me a call at (713) 531-3248, in Houston if you have any questions.



P. F. Fetizanan

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cc: RAC, PEM, JRH, MLA, DLD, SCR - LCVCM
CRD, RWC, LZK
File A-127.1

CCR 000021168

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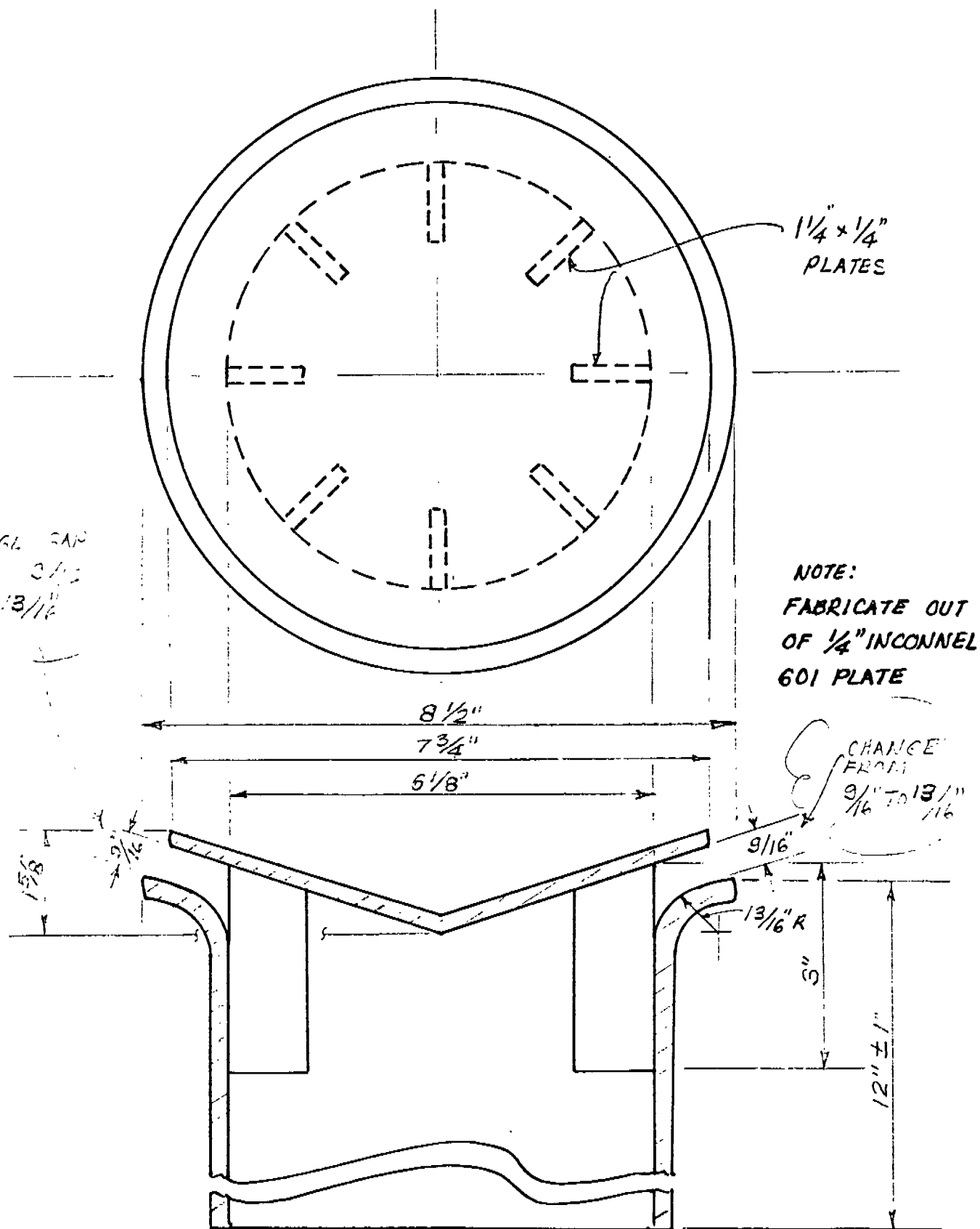


FIG. 1
INCINERATOR GAS TIP
PART # BC-705
LCVCM

CCR 00021169)

PFF
11/21/84

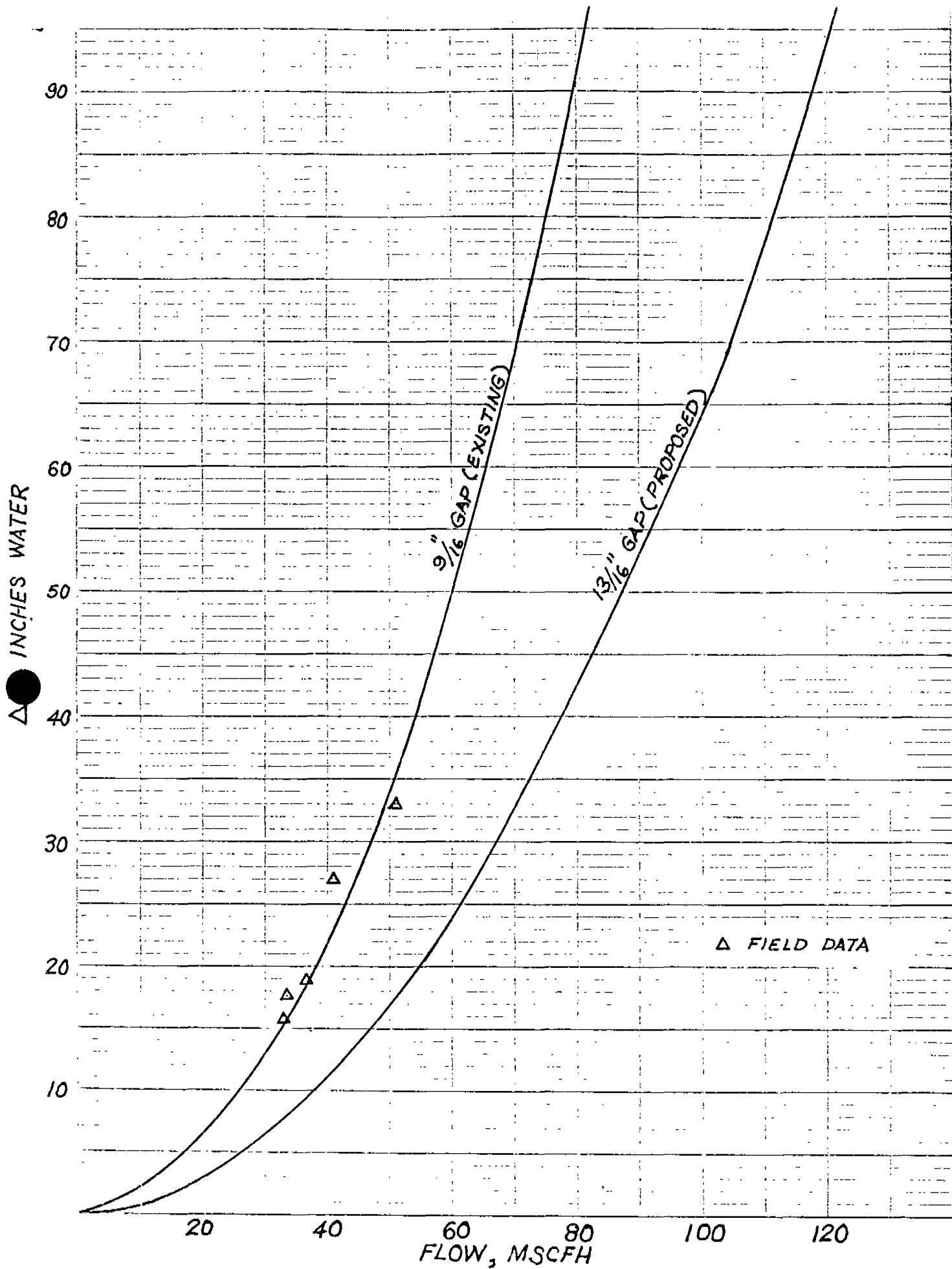


FIG. 2
GAS TIP ΔP
LCVCM PLANT

CCR 000021170