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ENVIRONMENTAL RESTORATION PROGRAM
Records Processing Facility
ER Records Index Form
(Side 1 of 2)

Part I: Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly.

DOCUMENT TO: N/A DOCUMENT DATE: N/A

ORIGINATOR NAME: C.W. Christenson ORGANIZATION: H-7

SYMBOL: N/A PAGE COUNT: 5

SUBJECT/TITLE: Incineration of Contaminated Organic Liquid Wastes

RECORD TYPE (Circle relevant type):

Analytical Data	Figure	Microform	Purchase Request	Transcription
Chain-of-Custody	Interview	Notebook	Receipt Acknowledgment	Video
Computer Output	Letter	Personal Notes	(Report)	Work Plan
Contract	Logbook	Photo	Review	Other
Drawing	Map	Plan	Study	
FAX	Memo	Procedure	Telephone Record	

RECORD CATEGORY: P RECORD PACKAGE # —

Part II: Complete all fields; indicate NA (Not Applicable) if appropriate. Please write legibly.

TECH AREA(S)	SWMU NO(S)	ADS NO(S)	STRUCTURE NO(S)
LIST RELEVANT TECH AREA(S) HERE.	*LIST RELEVANT SWMU(S) HERE.*	*LIST RELEVANT ADS NO(S) HERE.*	*LIST RELEVANT STRUCTURE NO(S) HERE.*
21	21-007	1106	N/A

14275

INCINERATION OF CONTAMINATED ORGANIC LIQUID WASTES

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Health Division
Los Alamos Scientific Laboratory
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Tricresyl phosphate contaminated with ^{239}Pu (approximately 10^3 d/m/ml) and diluted with one-half part kerosene was incinerated in an inexpensive commercial burner shown in Fig. 1.

Eleven liters of the mixture of kerosene and TCP were poured into the tank of the burner and the mixture ignited. Four air samplers were placed around the burner at a distance of about 3 meters. The rate of burning was about 2.5 liters per hour. The experiment was conducted successfully with no contamination of the surrounding ground area. The surface of the burner became slightly contaminated but there was little, if any, loose contamination. The maximum ^{239}Pu activity in the air was 1.5 d/m/M^3. The activity in the burner ash was about 3×10^5 d/m/gm, and the activity in the soot in the stack was about 3×10^3 d/m/gm. To date about 2500 liters have been incinerated in this way.

The burners are cleaned periodically under carefully controlled conditions and the ash, to which the ^{239}Pu is firmly fixed, is sent to the solid radioactive waste burial pits.

A solution of kerosene contaminated with old fission products 1.0×10^5 d/m/ml) was incinerated in a similar manner with usually successful results. In this case the radioactivity travel in the air was 20 d/m/M^3 of gross alpha (mostly uranium) and 70 d/m/M^3 gross beta. The radioactivity in the burner ash and soot was about 6×10^6 d/m/gm gross beta and 1×10^6 d/m/gm gross alpha; and 2×10^4 d/m/gm gross beta and 2×10^3 d/m/gm gross alpha respectively.

Batch was, transfer mouth

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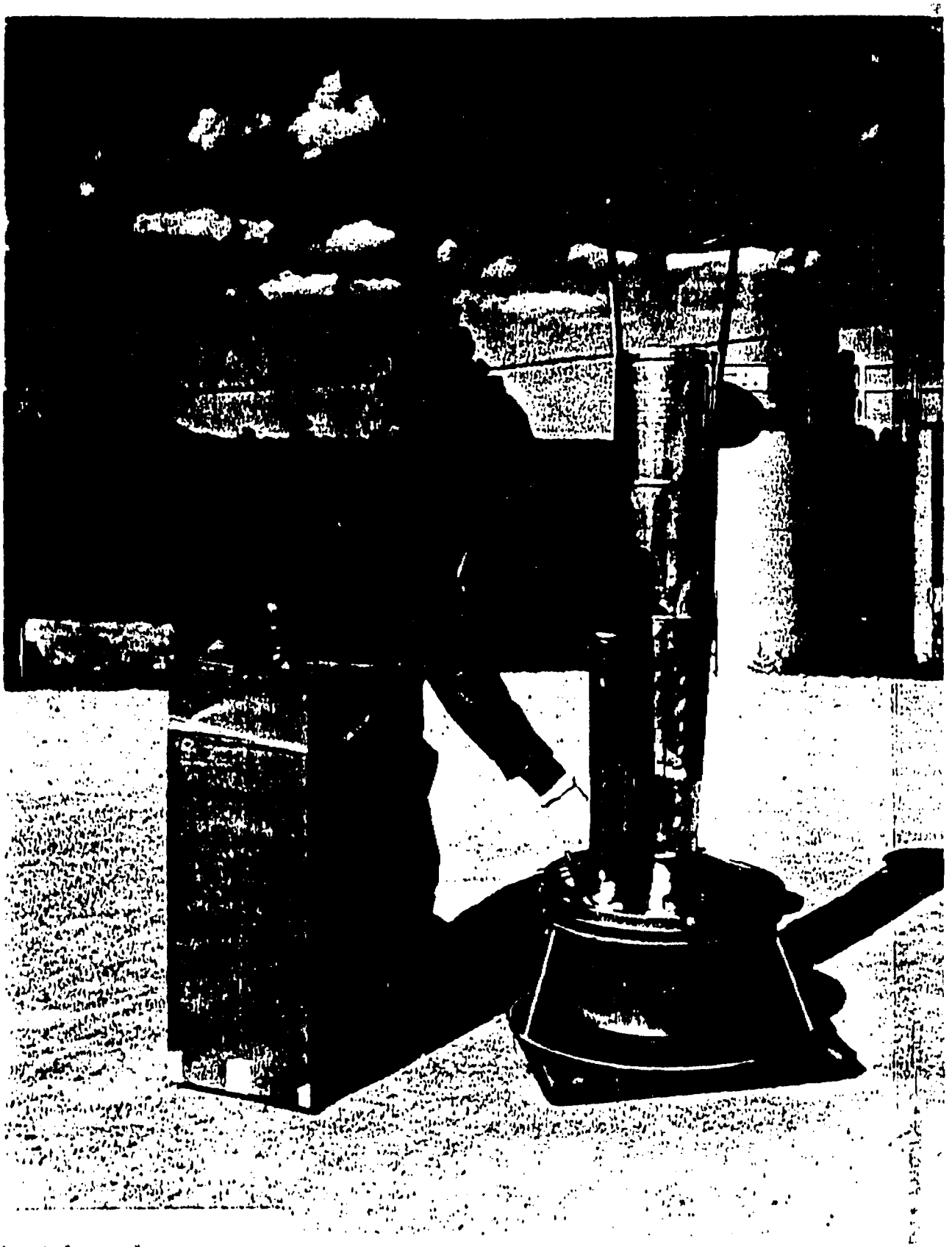
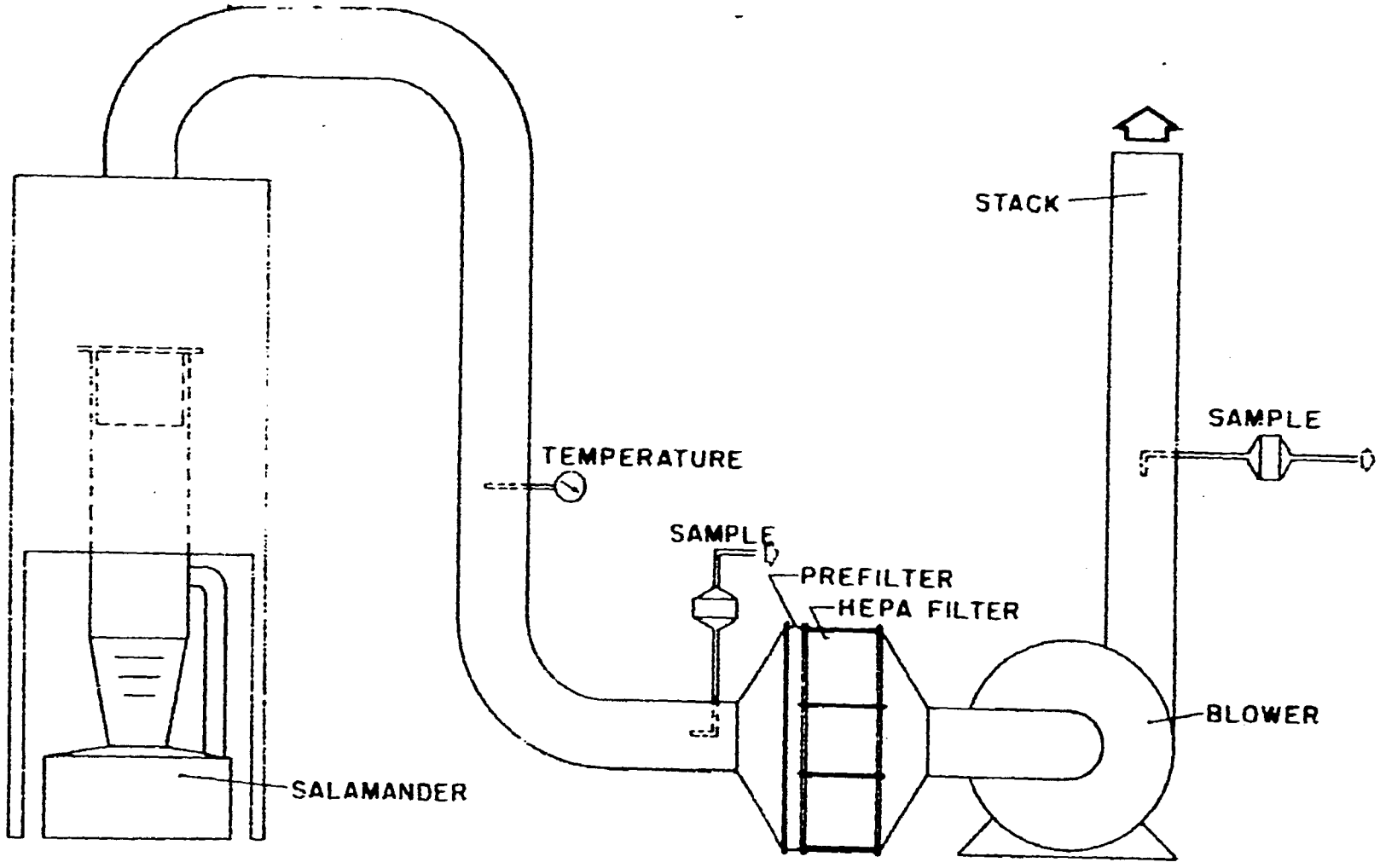


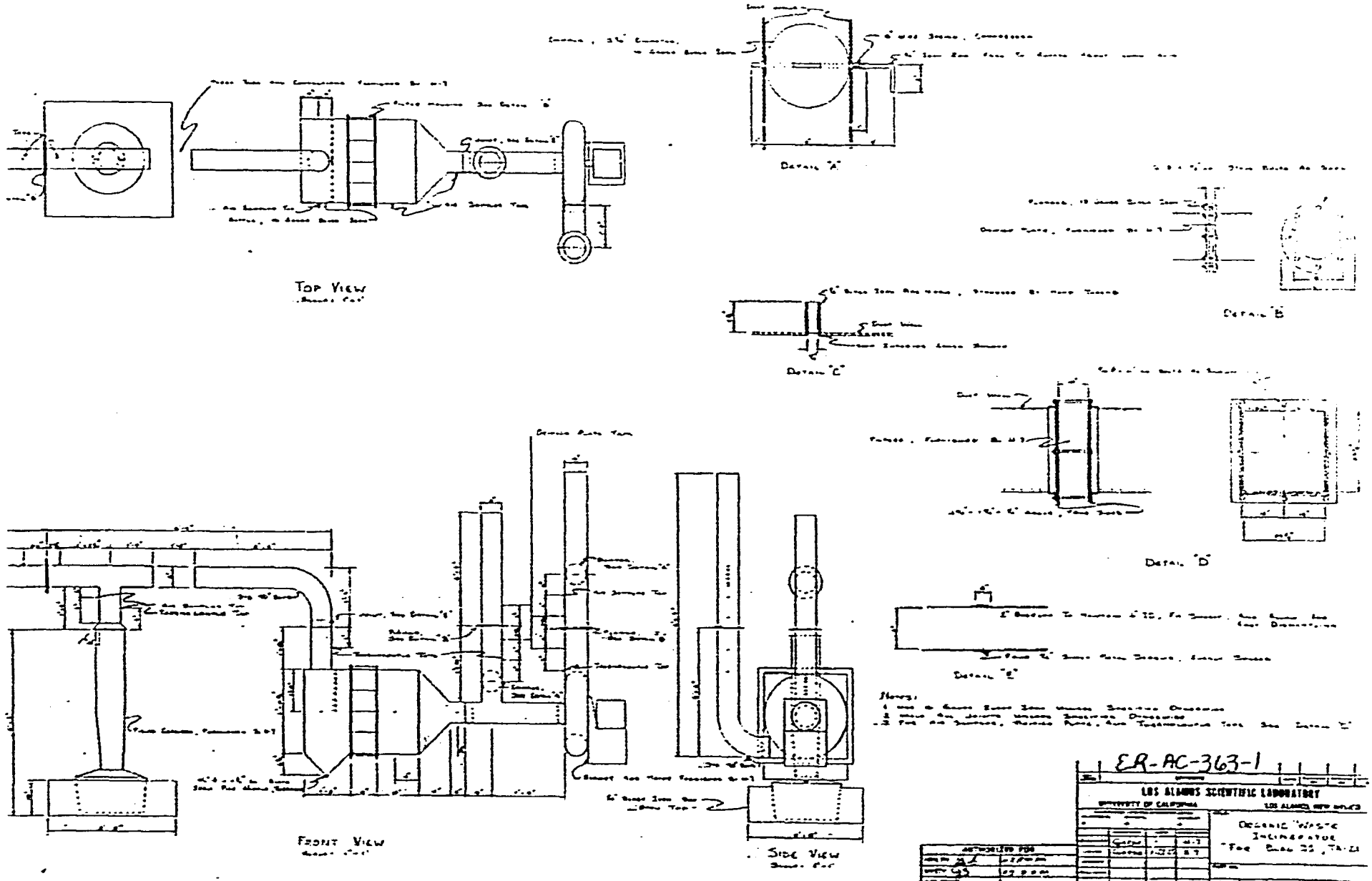
719986 Salamander

See back for caption

Neg. No. 719986: A conventional "Salamander" oil burner has been used experimentally to burn rubber gloves. Kerosene is used to start and sustain the combustion.



SCHEMATIC DIAGRAM
EXPERIMENTAL LIQUID WASTE INCINERATOR


Top View
Front View
Side View
Detail "A"
Detail "B"
Detail "C"
Detail "D"
Detail "E"
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ORGANIC WASTE INCINERATOR
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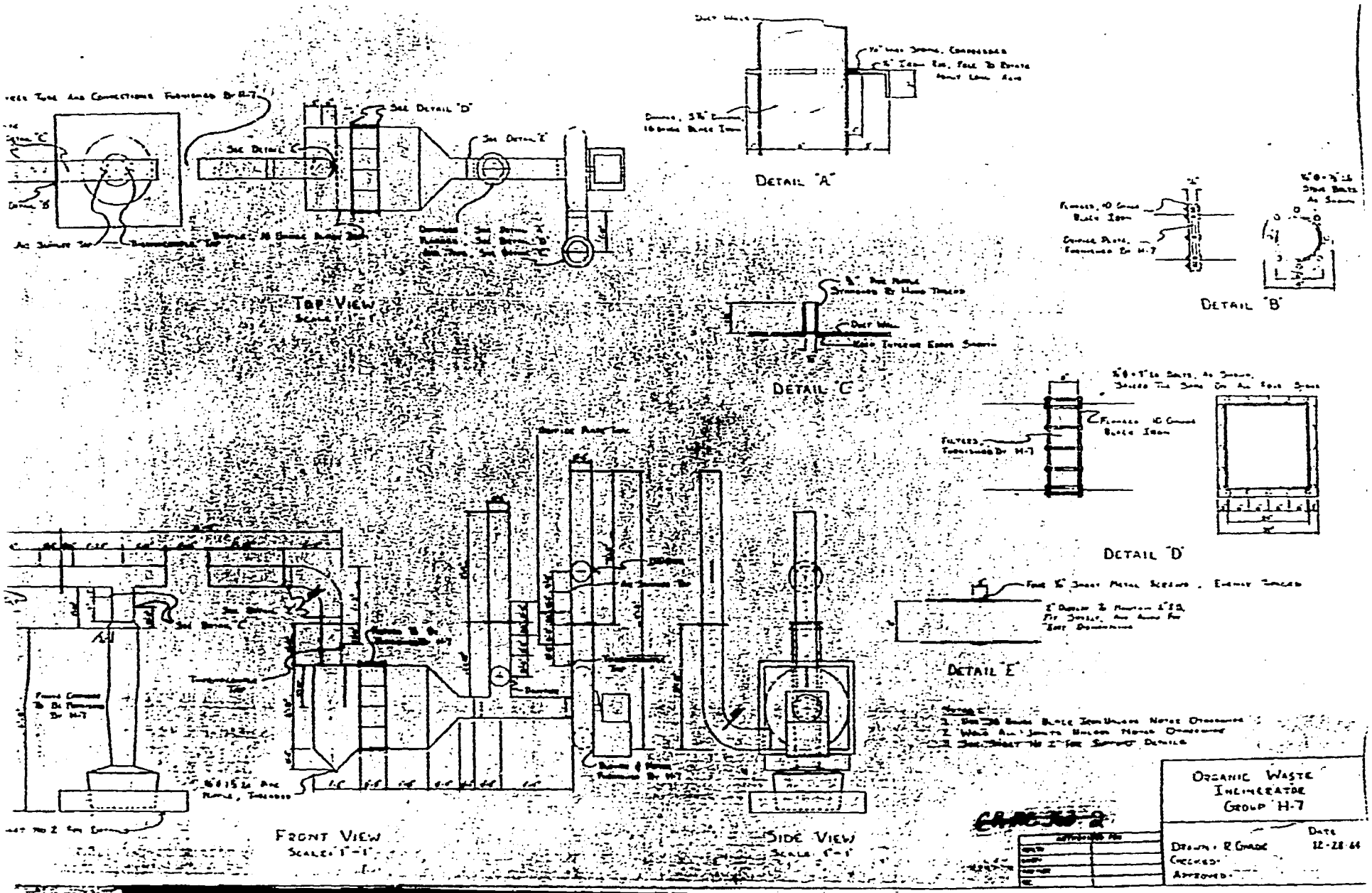
Top View
Front View
Side View
Detail "A"
Detail "B"
Detail "C"
Detail "D"
Detail "E"
See Detail "D"
See Detail "E"
See Detail "C"
Organic Waste
Incinerator
Group H-7
Date
12-28-64
Drawn: R Grade
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