NATURAL RESOURCES COMMISSION
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MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
[illegible] EWART MYERS
L[illegible] D. OLSON
RAYMOND POUPORE

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

AIR POLLUTION CONTROL COMMISSION
LEE E. JAGER, CHAIRMAN
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NICHOLAS C. KACHMAN
CHRISTINE LIETZAU
FRANK P. PARTEE
DELBERT RECTOR
JAN WILSON
KATHRYN WURZEL

December 3, 1990

Mr. G. Pfeil, Plant Manager
Ford Motor Company
701 E. 32 Mile Road
Romeo, Michigan 48065

Dear Mr. Pfeil:

This letter is in reference to your Permit to Install application for an aluminum block machining line, located at 701 East 32 Mile Road, Romeo, Michigan. Included in this line will be two parts washers and an electric furnace. Emissions from the line will be controlled by two large oil mist collectors with exterior discharge points, one small oil mist collector with an inplant discharge point and one wet dust scrubber with an exterior discharge point. This application, identified as No. 841-90, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplement. Please review these conditions thoroughly so that you may plan for and take the actions necessary to ensure compliance with all of these conditions. Also note that Condition No. 1 requires you to apply, in writing, for a permit to operate within 30 days after completion of construction.

You are advised that contaminants discharged to the surface waters and/or groundwaters; materials disposed of on land; hazardous waste storage, treatment, and disposal; and resource recovery facilities must be approved by other divisions of the Department of Natural Resources. Additionally, your plant environment must be in compliance with all applicable requirements of the Departments of Public Health and Labor. Thank you for your cooperation. Please contact me if you have any questions regarding this permit.

Sincerely,

Mark C. Mitchell

Mark C. Mitchell, Engineer
General Manufacturing Unit
Permit Section
Air Quality Division
517-373-7077

MCM:cmb
Enclosure
cc: Tom Maki

8

RECYCLED PAPER

SUPPLEMENT TO PERMIT NO. 841-90

Ford Motor Company
Romeo, Michigan

September 17, 1990

GENERAL CONDITIONS

1. Rule 208(2) - Not more than 30 days after completion of the installation, Applicant shall apply, in writing, for a Permit to Operate. Completion of the installation is deemed to occur not later than commencement of a trial operation pursuant to Rule 201(4). Written application should be sent to: Chief, Permit Unit, Air Quality Division, Department of Natural Resources, P.O. Box 30028, Lansing, Michigan 48909.

2. Rule 201(4) - Trial operation of the equipment is permitted until the Michigan Air Pollution Control Commission acts upon the Permit to Operate. Operation of the equipment shall permanently cease upon denial of the Permit to Operate by the Commission.

3. Rule 208(3)(a) and (c) - Applicant shall demonstrate compliance with all Commission rules and with all general and special conditions of this permit prior to issuance of the Permit to Operate.

4. Rule 201 - Applicant shall not reconstruct, alter, modify, expand, or relocate this equipment unless plans, specifications, and an application for a Permit to Install are submitted to and approved by the Commission.

5. Rule 901 - Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.

6. Rule 208(3)(b) - Operation of this equipment shall not interfere with the attainment or maintenance of the air quality standard for any air contaminant.

7. Operation of this equipment shall not result in significant deterioration of air quality.

8. Rule 912 - Applicant shall provide notification of any abnormal conditions or malfunction of process or control equipment covered by this application, resulting in emissions in violation of the Commission rules or of any permit conditions for more than two hours, to the District Supervisor. Such notice shall be made as soon as reasonably possible, but not later than 9:00 a.m. of the next working day. Applicant shall also, within 10 days, submit to the District Supervisor, a written detailed report, including probable causes, duration of violation, remedial action taken, and the steps which are being undertaken to prevent a reoccurrence.

9. Approval of this application does not exempt the Applicant from complying with any future regulations which may be promulgated under Act 348, P.A. 1965, as amended.

10. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

11. Act No. 53 - Applicant shall notify any public utility of any excavation, tunneling and discharging of explosives or demolition of buildings which may affect said utility's facilities in accordance with Act 53 of the Public Acts of 1974, being sections 460.701 to 460.718 of the Michigan Compiled Laws and comply with each of the requirements of that Act.

12. The restrictions and conditions of this Permit to Install shall apply to any person or legal entity which now or shall hereafter own or operate the equipment for which this Permit to Install is issued. Any new owner or operator shall immediately notify the Chief of the Permit Unit, in writing, of such change in ownership or principal operator status of this equipment.

13. Rule 201(5) - If the installation, reconstruction, relocation, or alteration of the equipment for which this permit has been approved has not commenced within, or has been interrupted for, 18 months, this permit shall become void unless otherwise authorized by the Commission.

SPECIAL CONDITIONS

14. Rule 331 - The particulate emission from the aluminum block machining line, hereafter "line", shall not exceed 0.005 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis.

15. There shall be no visible emissions from the line.

16. Rules 1001, 1003 and 1004 - Verification of particulate emission rates from the line by testing, at owner's expense, in accordance with Commission requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing procedures and the location of stack testing ports must have prior approval by the District Supervisor, Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification.

17. Applicant shall not operate the line unless the three oil mist collectors and the one wet dust scrubber are installed and operating properly.

18. The disposal of collected air contaminants shall be performed in a manner which minimizes the introduction of air contaminants to the outer air.

19. The exhaust gases from the portion of the line controlled by the two large oil mist collectors shall be discharged unobstructed vertically upwards to

the ambient air from two stacks, each with a maximum diameter of 32 inches at an exit point not less than 41 feet above ground level.

20. The exhaust gases from the portion of the line controlled by the wet dust scrubber shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 20 inches at an exit point not less than 40 feet above ground level.

21. The exhaust gases from the two parts washers shall be discharged unobstructed vertically upwards to the ambient air from two stacks, each with a maximum diameter of 22 inches at an exit point not less than 37 feet above ground level.

22. The exhaust gases from the electric furnance shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 22 inches at an exit point not less than 38 feet above ground level.

23. Applicant shall not substitute any raw materials, fuels, and/or cleaning agents for those described in this permit application which would result in an appreciable change in the quality or any appreciable increase in the quantity of the emission of an air contaminant without prior notification to and approval by the Air Quality Division.

MCM:cmb

STATE OF MICHIGAN

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
P.O. BOX 30028
LANSING, MICHIGAN 48909

AIR USE PERMIT APPLICATION

APPLICATION NO. 841-90

AIR QUALITY DIVISION

AUG 14 1990

PERMIT SECTION

MM

FOR AUTHORITY TO INSTALL, CONSTRUCT, RECONSTRUCT, RELOCATE, OR ALTER, AND OPERATE PROCESS, FUEL-BURNING, OR REFUSE-BURNING EQUIPMENT AND/OR CONTROL EQUIPMENT (PERMITS TO INSTALL AND OPERATE ARE REQUIRED BY ADMINISTRATIVE RULES PURSUANT TO ACT 348, P.A. 1965, AS AMENDED).

1. APPLICANT: Business License Name of Corporation, Partnership, Individual Owner, Government Agency
Ford Motor Company

2. MAILING ADDRESS: Number and Street; City or Village; State; Zip Code
701 E. 32 Mile Road, Romeo, MI 48065

3. EQUIPMENT OR PROCESS LOCATION: Number and Street; City, Village or Township
701 E. 32 Mile Road, Romeo, MI 48065

COUNTY: Macomb

ZIP CODE: 48065

4. GENERAL NATURE OF BUSINESS:
Manufacture of automotive engines.

5. EQUIPMENT OR PROCESS DESCRIPTION:
Aluminum block machining line, which includes machining operations for the aluminum block and main bearing cap for the aluminum block 4.6L engine to be built at the Romeo Engine Plant. Estimated volume 30,000 parts/year.
See attachments for descriptions.

1) Process flow diagram and description
2) Process metals and coolants
3) Air permit data sheet
4) Literature and specifications on control equipment
5) Drawing of equipment locations and process line

6. ESTIMATED COST:
Air Pollution Control Equipment $; Total Project $

7. ACTION AND TIMING:

	ESTIMATED STARTING DATE	ESTIMATED COMPLETION DATE
[X] Installation, construction, reconstruction, or alteration	10-1-90	4-1-91
[ ] Relocation		
[ ] Change of Ownership		

8. NAME OF PRIOR OWNER AS IN ITEM 1 ABOVE, AND PRIOR AIR USE PERMIT NUMBER, IF ANY:
NAME PERMIT NO.

9. NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM
Name G. Pfeil Signature G. Pfeil
Title: Plant Manager Date: Phone No. (313) 752-8025

10. CONTACT PERSON IF DIFFERENT THAN ITEM 9:
Name Joe Lennon Phone No. (313) 322-1227

11. DISPOSITION OF APPLICATION: FOR DNR USE ONLY

Receipt of all information required by Rule 203: 8/31/90

(to install approved * on: 9-17-90 Signature: Robert Miller

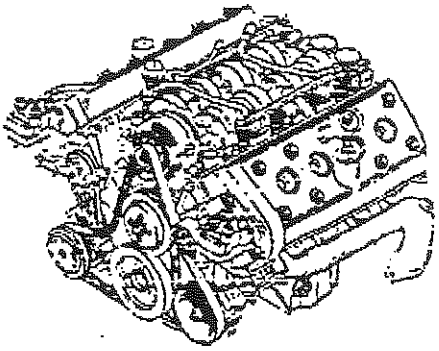
Permit to operate approved * on: Signature:

Application/permit voided on: Signature:

Application/permit denied on: Signature:

*Subject to compliance with all Commission Rules and Conditions stipulated in the attached supplement.

AQ-1 INSTRUCTIONS FOR COMPLETING AND FILING ARE ON REVERSE SIDE PR 5615 3/88



Ford

UAW ROMEO ENGINE TEAM Ford

Romeo Engine Plant

Facsimile Cover Sheet

(313) 752-8211

To: Mark Mitchell

Fax No: ~~313~~ 517-373-1265

Location: MDNR

From: Stacy Swatsenberg

Telephone No: 313-752-8087

Date: August 31, 1990

AIR QUALITY DIVISION
AUG 31 1990
PERMIT SECTION

Comments: MSDS for Ford Romeo parts washers

Number of sheets transmitted including Cover Sheet 4

Tox No. : 044600 FORD Material Fact Sheet Page 1

Print Date : 11/21/89
Last Reviewed : 11/02/89

Tox Status : C2
Product: M5B286A(M)

Supplier: DIVERSIFIED CHEMICAL TECH INC (UCCS: F283A)
15477 WOODROW WILSON
DETROIT, MI 48238

This material has not been identified against a material Specification.

CHEMICAL AND PHYSICAL PROPERTIES

Material type	LIQUID
Color	PALE YELLOW
Odor	NONE
Specific Gravity	1.16
Viscosity	Not Determined
Vapor Pressure	Not Determined
Boiling Point	+100 C
Freezing Point	Not Determined
Flash Point	Not Applicable
Upper Flammable Lmt.	Not Determined
Lower Flammable Lmt.	Not Determined
Auto-ignition Temp.	Not Determined
pH	13.4
pH diluted	10.4 at 1.00%

HAZARDOUS INGREDIENTS

Percent Range	Exposure Limits - TWA ACGIH/OSHA (where est.)	CAS number		Chemical Name
>5-10	C 2/C 2 mg/m3	1310-58-3	*	POTASSIUM HYDROXIDE
>5-10	1(S3)/1(S3) mg/m3	7664-38-2	*	PHOSPHORIC ACID

Exposure Limit Abbreviations

TWA=Time Weighted Average C=Ceiling
S=Short Term Exposure Sk=Skin
Sol=Soluble Compounds Fu=Fumes
Insol=Insoluble Compounds Du=Dust

* See chemical fact sheets (CFS) for additional details on these ingredients.

REGULATORY INFORMATION

This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SIGNAL WORD

DANGER -- CORROSIVE

517-373-1265

HAZARDS

Contact with this material will cause burns to the skin, eyes and mucous membranes.
This product is irritating to the respiratory system.
When this material comes into contact with the eyes, serious damage may occur.

TARGET ORGANS AND MEDICAL CONDITIONS

Skin, Eyes, and Respiratory System

ACUTE TOXICITY INFORMATION

Based on the composition of the product identified by the supplier, selected portions of the acute toxicity information from RTECS are as follows:

126-92-1 2-ETHYLHEXYL SODIUM SULFATE
Oral, adult rat, LD50 = 4 gm/kg
1310-58-3 POTASSIUM HYDROXIDE
Oral, adult rat, LD50 = 365 mg/kg
7664-38-2 PHOSPHORIC ACID
Oral, adult rat, LD50 = 1530 mg/kg
Skin, adult rabbit, LD50 = 2740 mg/kg
7779-27-3 HEXAHYDRO-1,3,5-TRIETHYL-S-TRIAZINE
Oral, adult rat, LD50 = 316 mg/kg

SAFE HANDLING AND STORAGE

Do not breathe gas/fumes/vapor/spray.
Use this product with adequate ventilation.
Do not get this material in your eyes, on your skin, or on your clothing.

FIRE, EXPLOSION AND REACTIVITY INFORMATION

This product is not combustible.

PROTECTIVE MEASURES AND TREATMENTS

Use impervious gloves.
Use of an impervious apron is recommended.
Wear chemical goggles or a full face shield.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Immediately take off all contaminated clothing.
For skin contact, wash immediately with soap and water.
If irritation persists, get medical attention.

NOTES TO PHYSICIANS

If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately.

SPILLS, LEAKS AND DISPOSAL

Neutralize the spilled material before disposal.
Dispose of waste material according to Local, State, and Federal Environmental Regulations.

TOXICOLOGY BULLETINS

Caustics and Acids (TB 105)

U. S. DEPARTMENT OF TRANSPORTATION INFORMATION

Shipping name: COMPOUND, CLEANING, LIQUID NA: 1760
Hazard Class: Corrosive material Hazard Label: Corrosive

The chemical name(s) appearing below under "NAME" must appear as part of shipping name IF the amount being shipped in each container exceeds the quantity shown under "RQ" below. The letters "RQ" must also appear as part of the shipping name, in the form:

shipping name, chemical name, RQ.

For U.S. shipments from Ford Facilities, consult the "Ford Hazardous Material Transportation Control Program" Manual, otherwise consult 49CFR172.

CAS	RQ(lbs)	NAME
1310-58-3	16666	POTASSIUM HYDROXIDE
7664-38-2	83333	PHOSPHORIC ACID

PREPARATION INFORMATION

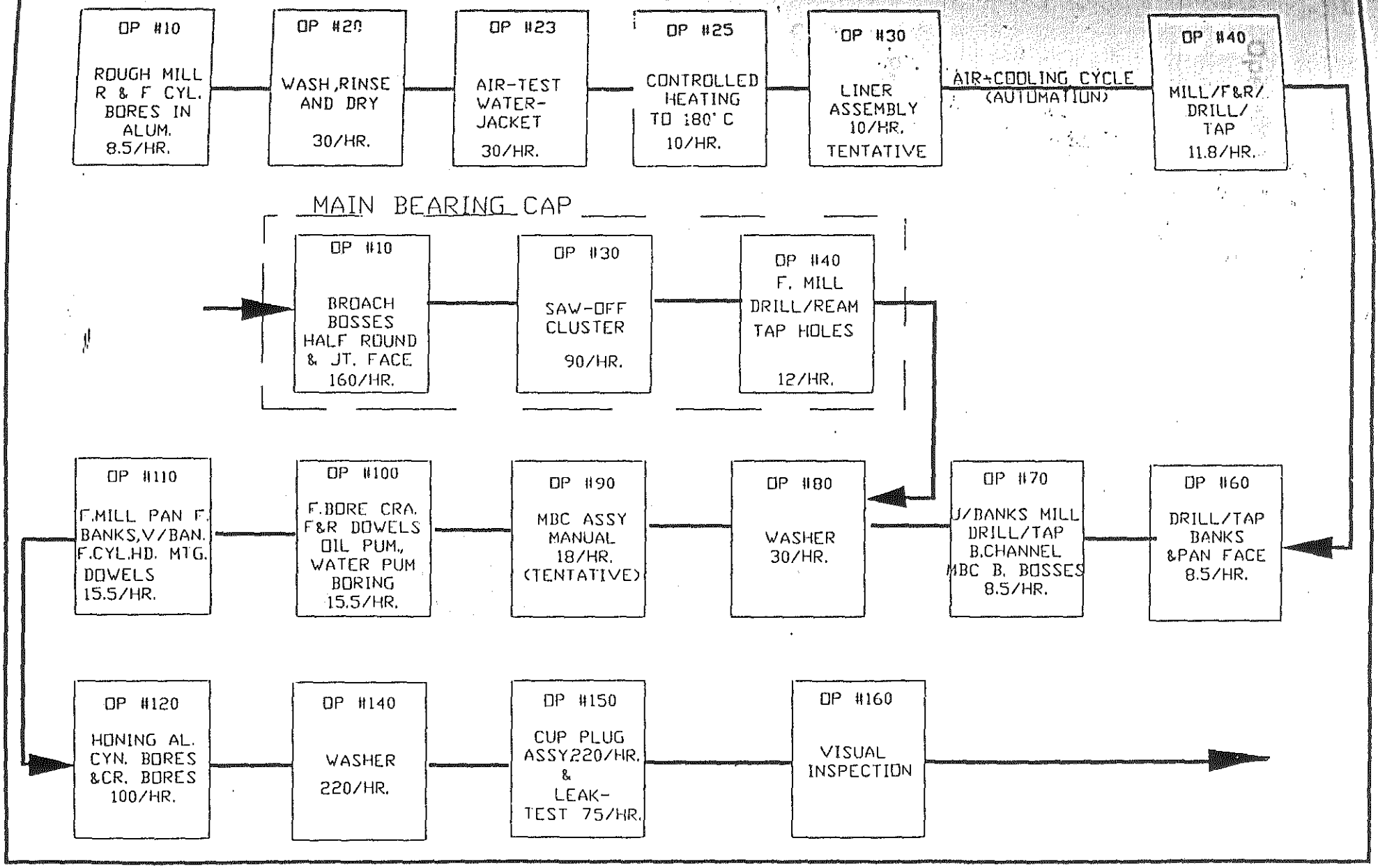
The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a Supplier MSDS is available on request. Health and safety information has been evaluated by:

Environmental & Occupational Toxicology, Occupational Health & Safety,
Ford Motor Company
900 Parklane Towers West, Dearborn, MI 48126

For emergency call: (313) 337-3182 -or- (313) 323-0045 (for 24 hour service)

PROCESS FLOW DIAGRAM

PHASE I 30,000/YR.



Print Date : 11/15/89
Last Reviewed : 10/04/89

Tox Status : C2
Product: 145 T-KOOL SOLUBLE CUTTING OIL

BEARING CAP
OP 30
COOLANT

Supplier: EPP TECH OIL CO
9100 FREELAND
DETROIT, MI 48228
Telephone: 313-272-5580

(UCCS: E739A)

APPROVED to ACTIVE NAAO non-prod spec M3C83-A.

CHEMICAL AND PHYSICAL PROPERTIES

Material type	LIQUID
Color	DARK AMBER
Odor	MILD PETROLEUM
Specific Gravity	0.9
Viscosity	400 SUS at +37.8C
Boiling Point	Not Applicable
Flash Point	+149 C (Cleveland Open Cup)
pH	Not Applicable
pH diluted	10.5 at 10.00%
Solubility in Water	EMULSIFIES

HAZARDOUS INGREDIENTS

Percent Range	Exposure Limits - TWA ACGIH/OSHA (where est.)	CAS number	Chemical Name
>30-60	5/5 Ford= 2.5 mg/m3	64742-52-5 +	PETROLEUM DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC
>30-60	5/5 Ford= 2.5 mg/m3	64742-55-8 +	PETROLEUM DISTILLATES, HYDROTREATED LIGHT PARAFFINIC
>10-30	None Established	68608-26-4	SULFONIC ACIDS, PETROLEUM, SODIUM SALTS
1-5	None Established	9016-45-9	ETHYLENE OXIDE-NONYLPHENOL POLYMER
.1-<1	None Established	8002-09-3	PINE OIL

Exposure Limit Abbreviations

TWA=Time Weighted Average C=Ceiling
S=Short Term Exposure Sk=Skin
Sol=Soluble Compounds Fu=Fumes
Insol=Insoluble Compounds Du=Dust
+ For more information on 64742-52-5, see CFS for 8012-95-1.
+ For more information on 64742-55-8, see CFS for 8012-95-1.

REGULATORY INFORMATION

The information provided here is based on the MSDS required under the U.S. Hazard Communication Standard.

SIGNAL WORD

WARNING

HAZARDS

This product may cause sensitization by skin contact.
This product may be harmful by inhalation.
Exposure to oil mist/fume/vapor may cause respiratory tract irritation.
Prolonged or repeated contact with this product may dry and/or defat the skin.
This product may cause irritation to the eyes.

TARGET ORGANS AND MEDICAL CONDITIONS

None Known

ACUTE TOXICITY INFORMATION

Based on the composition of the product identified by the supplier, selected portions of the acute toxicity information from RTECS are as follows:

9016-45-9 ETHYLENE OXIDE-NONYLPHENOL POLYMER
Oral, adult rat, LD50 = 1310 mg/kg
Skin, adult rabbit, LD50 = 2000 mg/kg

SAFE HANDLING AND STORAGE

Avoid getting this material into contact with your eyes.
Avoid prolonged or repeated skin contact with this material.
Avoid prolonged or repeated breathing of this material.
Store this product in a cool, dry, well-ventilated place.
Use this product with adequate ventilation.
Avoid the generation of oil mists.

FIRE, EXPLOSION AND REACTIVITY INFORMATION

This product is combustible at high temperatures.
EXTINGUISHER INFORMATION: Dry chemical, foam, carbon dioxide.
A fine spray or fog of water will reduce the intensity of flames.
This product may react with strong oxidizing agents.

PROTECTIVE MEASURES AND TREATMENTS

Wear chemical goggles.
Use of an impervious apron is recommended.
Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.
Wear impervious gloves for prolonged contact.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Remove contaminated clothing and wash before reuse.
If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting.
Wash thoroughly after handling.
If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediatly remove the affected person(s) to fresh air.

NOTES TO PHYSICIANS

This material, if aspirated into the lungs, may cause chemical pneumonitis; treat the affected person appropriately.

SPILLS, LEAKS AND DISPOSAL

Do not allow this material to drain into sewers/water supplies.
Thoroughly wash the area after a spill or leak clean-up.
Ventilate the contaminated area.
Contain the discharged material.
Absorb the spilled material with sand or activated clay.
Surfaces may become slippery after spillage.
Avoid skin contact and inhalation of vapors during disposal of spills.
Dispose of waste material according to Local, State, and Federal Environmental Regulations.

SPECIAL REMARKS

This material is less irritating when it is diluted for end use.
This is an alkaline material.

U. S. DEPARTMENT OF TRANSPORTATION INFORMATION

Under current DOT regulations, this material does not require being transported as a hazardous material.

PREPARATION INFORMATION

The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a Supplier MSDS is available on request. Health and safety information has been evaluated by:

Environmental & Occupational Toxicology, Occupational Health & Safety,
Ford Motor Company
900 Parklane Towers West, Dearborn, MI 48126

For emergency call: (313) 337-3182 -or- (313) 323-0045 (for 24 hour service)

Print Date : 11/15/89
Last Reviewed : 08/25/89

Tox Status : C2
Product: TLC-903 CASTROL HONING OIL

Supplier: CASTROL INDUSTRIAL GREAT LAKES INC (UCCS: K8U9A)
1445 W MCPHERSON PARK DR
HOWELL, MI 48844
Telephone: 517-546-4520

This material has not been identified against a material Specification.

CHEMICAL AND PHYSICAL PROPERTIES

Material type	LIQUID
Color	CLEAR RED
Odor	PETROLEUM
Specific Gravity	0.85
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Evaporation Rate	<1 (Ether = 1)
Boiling Point	>+260 C
Flash Point	+124 C (Cleveland Open Cup)
Upper Flammable Lmt.	Not Applicable
Lower Flammable Lmt.	Not Applicable
pH	Not Applicable

HAZARDOUS INGREDIENTS

Percent Range	Exposure Limits - TWA ACGIH/OSHA (where est.)	CAS number		Chemical Name
>60	5/5 Ford= 2.5 mg/m3	64742-53-6	+	PETROLEUM DISTILLATES, HYDROTREATED LIGHT NAPHTHENIC
1-5	100/100 ppm	8006-64-2	*	TURPENTINE, OIL

Exposure Limit Abbreviations

TWA=Time Weighted Average	C=Ceiling
S=Short Term Exposure	Sk=Skin
Sol=Soluble Compounds	Fu=Fumes
Insol=Insoluble Compounds	Du=Dust

* See chemical fact sheets (CFS) for additional details on these ingredients.
+ For more information on 64742-53-6, see CFS for 8012-95-1.

SIGNAL WORD

WARNING

HAZARDS

This product is harmful by inhalation.
This product is irritating to the eyes and skin.
This product may cause an allergic skin reaction.
This product may be harmful if it is absorbed through the skin.
Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
Exposure to oil mist/fume/vapor may cause respiratory tract irritation.
Prolonged or repeated contact with this product may dry and/or defat the skin.

Print Date : 11/15/89
Last Reviewed : 08/25/89

Tox Status : C2
Product: TLC-903 CASTROL HONING OIL

Supplier: CASTROL INDUSTRIAL GREAT LAKES INC (UCCS: K8U9A)
1445 W MCPHERSON PARK DR
HOWELL, MI 48844
Telephone: 517-546-4520

This material has not been identified against a material Specification.

CHEMICAL AND PHYSICAL PROPERTIES

Material type	LIQUID
Color	CLEAR RED
Odor	PETROLEUM
Specific Gravity	0.85
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Evaporation Rate	<1 (Ether = 1)
Boiling Point	>+260 C
Flash Point	+124 C (Cleveland Open Cup)
Upper Flammable Lmt.	Not Applicable
Lower Flammable Lmt.	Not Applicable
pH	Not Applicable

HAZARDOUS INGREDIENTS

Percent Range	Exposure Limits - TWA ACGIH/OSHA (where est.)	CAS number		Chemical Name
>60	5/5 Ford= 2.5 mg/m3	64742-53-6	+	PETROLEUM DISTILLATES, HYDROTREATED LIGHT NAPHTHENIC
1-5	100/100 ppm	8006-64-2	*	TURPENTINE, OIL

Exposure Limit Abbreviations

TWA=Time Weighted Average	C=Ceiling
S=Short Term Exposure	Sk=Skin
Sol=Soluble Compounds	Fu=Fumes
Insol=Insoluble Compounds	Du=Dust

* See chemical fact sheets (CFS) for additional details on these ingredients.
+ For more information on 64742-53-6, see CFS for 8012-95-1.

SIGNAL WORD

WARNING

HAZARDS

This product is harmful by inhalation.
This product is irritating to the eyes and skin.
This product may cause an allergic skin reaction.
This product may be harmful if it is absorbed through the skin.
Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
Exposure to oil mist/fume/vapor may cause respiratory tract irritation.
Prolonged or repeated contact with this product may dry and/or defat the skin.

Print Date : 11/15/89
Last Reviewed : 03/24/87

Tox Status : C2
Product: 390 SAFETY-COOL ALUMINUM BLOCK COOLANT

Supplier: CHEM TREND INC (UCCS: C396B)
3205 E GRAND RIVER
HOWELL, MI 48843
Telephone: 517-546-4520

This material has not been identified against a material Specification.

CHEMICAL AND PHYSICAL PROPERTIES

Material type	LIQUID
Color	BROWN
Specific Gravity	0.960
Boiling Point	>149 C
Flash Point	+142 C (Cleveland Open Cup)
pH	Not Applicable
pH diluted	8.5 at 5.00%

HAZARDOUS INGREDIENTS

Percent Range	Exposure Limits - TWA ACGIH/OSHA (where est.)	CAS number	Chemical Name
>30-60	5/5 Ford= 2.5 mg/m3	64742-52-5 +	PETROLEUM DISTILLATES, HYDROTREATED HEAVY NAPHTHENIC
>10-30	None Established	68608-26-4	SULFONIC ACIDS, PETROLEUM, SODIUM SALTS

Exposure Limit Abbreviations

TWA=Time Weighted Average C=Ceiling
S=Short Term Exposure Sk=Skin
Sol=Soluble Compounds Fu=Fumes
Insol=Insoluble Compounds Du=Dust
+ For more information on 64742-52-5, see CFS for 8012-95-1.

SIGNAL WORD

WARNING

HAZARDS

This product is irritating to the eyes.
Exposure to oil mist/fume/vapor may cause respiratory tract irritation.
This product may cause irritation to the respiratory system and skin.

SAFE HANDLING AND STORAGE

Avoid getting this material into contact with your eyes.
Avoid prolonged or repeated skin contact with this material.
Avoid prolonged or repeated breathing of this material.

PROTECTIVE MEASURES AND TREATMENTS

Use impervious gloves.
Wear chemical goggles.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wash thoroughly after handling.

TOXICOLOGY BULLETINS

Petroleum Lubricating Oils (TB 101)

PREPARATION INFORMATION

The chemical identification and properties for this material were provided by the manufacturer. For Canadian locations, a Supplier MSDS is available on request. Health and safety information has been evaluated by:

Environmental & Occupational Toxicology, Occupational Health & Safety,
Ford Motor Company
900 Parklane Towers West, Dearborn, MI 48126

For emergency call: (313) 337-3182 -or- (313) 323-0045 (for 24 hour service)

ALUMINUM BLOCK MATERIAL

MATERIAL ALUMINIUM ALLOY
TEKSID ALLOY AS7U3G-TTS
Si 6.5 - 8.0 ; Mg 0.20 - 0.60 ; Cu 3.0 - 4.0
Mn 0.2 - 0.5 ; Zn 0.8 max ; Ni 0.3 max
Fe 0.8 max ; Sn 0.1 max ; Ti 0.25 max
Pb 0.15 max
FORD ALLOY AA319 (SAE 326) WITH MODIFIED SILICON AND MAGNESIUM

MECHANICAL PROPERTIES TO BE CHECKED ON TEST BAR
CUT OUT FROM BOSS MARKED ◇
E % 1 MINIMUM
U.T.S. 190 MPa MINIMUM (28,000 psi)
Y.S. 140 MPa MINIMUM (20,000 psi)
ABOVE PROPERTIES TO BE TAKEN FROM SAMPLES CUT
FROM IN PROCESS CASTING

BRINELL HARDNESS OF ROUGH CASTING AT POINT △ (Z2
85-100 BHN (10 mm. ball , 500 kg load , 15 seconds)
HARDNESS MEASUREMENTS TAKEN ELSWHERE ON SAME CASTING TO
BE WITHIN +/- 10 BHN OF " Z2 " POINT

08747

LABORATORY REPORT - INITIAL SAMPLE

LAB NUMBER	08747
DEPT. CHARGE	
TOTAL MINUTES	

PART NAME	PART NO.
CYLINDER HEAD CASTING	RF-F1AE6090HC

SUPPLIER	PRODUCT ENGINEERING DESIGNATED CONTROL ITEM
TEKSID ALUMINUM FOUNDRY	YES ☐ NO ☒

SAMPLE SUBMITTED BY	BLDG. OR PLANT	I.S.J.R. NO.	BUYER	NO. SAMPLES	DATE
G. ALLIEVI	T.A.F.	562892	M. BYRNE	300	12/16/8

TYPE OF TEST	SPECIFICATIONS	SUPPLIER TEST RESULTS	CONSUMER VERIFICATION OF TEST RESULTS
CHEMICAL ANALYSIS	ALUMINUM ALLOY AA319 (SAE 326)	(on 10 samples)	
	Si 65 - 8.0 ✓	7.514 to 7.784 ✓	
	Mg 0.20 - 0.60 ✓	0.352 to 0.381 ✓	
	Cu 3.0 - 4.0 ✓	3.212 to 3.392 ✓	
	Mn 0.2 - 0.5 ✓	0.324 to 0.347	
	Zn 0.8 MAX ✓	0.648 to 0.671 ✓	
	Ni 0.3 MAX ✓	0.039 to 0.042 ✓	
	Fe 0.8 MAX ✓	0.686 to 0.735 ✓	
	Sn 0.1 MAX ✓	0.057 to 0.060 ✓	
	Ti 0.25 MAX ✓	0.089 to 0.099 ✓	
	Pb 0.15 MAX ✓	0.088 to 0.092 ✓	
MECHANICAL PROPERTIES	E% 1 Min ✓	See Attachment #2	
	U.T.S. 28Kpsi min ✓	See attachment #2	
	Y.S. 20Kpsi min ✓	See attachment #2	
	HB 85-100 ✓	See attachment #1	

TO BE COMPLETED BY SUPPLIER

NAME OF LABORATORY PERFORMING ABOVE TEST: TAF CAB

SAMPLES MADE TO B/P DATED: 11-10-89 (FORD 7-24-89) DATE TESTED: 12-10-89

WE HEREBY CERTIFY THAT WE BELIEVE THE ABOVE INSPECTION RESULTS ARE CORRECT AND THAT OUR SAMPLE MEETS FORD MOTOR COMPANY SPECIFICATIONS.

SIGNATURE OF RESPONSIBLE OFFICIAL: [illegible] TITLE: DATE:

TO BE COMPLETED BY CONSUMER

BY: JW DATE: 12-15-89 TO SPEC. ✓ NOT TO SPEC.

RECOMMENDATIONS

AUTHORIZED Q.C. SIGNATURE: John Wogniak APPROVED ✓ REJECTED

Ford QUAL CONT MAR 87 378a

IDENTIFY WITH ▽ PRODUCT ENGINEERING DESIGNATED CONTROL ITEM CRITICAL CHARACTERISTICS

COPY 1

MBC MAIN BEARING CAP

ENGINEERING MATERIAL SPECIFICATION

Material Name	File Control No.	Specification Number
NODULAR IRON - CRANKSHAFTS (PEARLITIC)	SMT5001AK0140/1/2	WSE-M1A172-B1/B2/B3

(4.6L 4V B.C.)

1. SCOPE MAIN BEARING CAP MATERIAL

The material defined by this specification is a nodular iron.

2. APPLICATION

This specification was released originally for material used for crankshafts.

3. REQUIREMENTS

3.1 STATISTICAL PROCESS

Suppliers must conform to the requirements of Ford Quality System Standard Q-101. A mutually acceptable Control Plan as described therein is required for material/source approval. Appropriate statistical tools must be used to analyse process/product data so that variation in the final product is continuously reduced.

3.2 CHEMICAL COMPOSITION (LADLE)

Specific chemistry will vary based on section size and foundry practice to achieve the required mechanical properties. The ladle analysis will form part of the control plan.

3.3 HARDNESS

3.3.1 As cast hardness - determined between foundry and machinist.

3.3.2 Bearing and 'seal running' Surface Hardness, HB (ISO 6506/ASTM E 10)

	B1	B2	B3
	217-286	235-302	255-311

Unless otherwise specified, castings may be normalized or annealed to meet the desired hardness range.

3.4 MECHANICAL PROPERTIES (ISO 6892/ASTM E 8M)

		B1	B2	B3
3.4.1	Tensile Strength, min	560 MPa	630 MPa	700 MPa
3.4.2	Yield Strength, min (0.2% offset)	350 MPa	400 MPa	450 MPa
3.4.3	Elongation, min	2%	2%	2%

Date	Release No.	Release/Revision
1987 10 28	SM/ER1249TC	Released - H. Nikkel NAAO, N P Riley, EAO.

Note: The test bar for determining mechanical properties should be machined from the center main bearing counterweight section. For production testing purposes, mechanical properties may be obtained from Y blocks, coupons or non-destructive test methods providing evidence of correlation with the requirements (Section 3) for the finished part can be demonstrated.

3.5 MICROSTRUCTURE - Finished Crankshaft Before Fillet Rolling

When viewed at 100 x the bearing surfaces and fillet radii shall consist of:

	B1	B2	B3
Pearlite, % min	50	80	90
Ferrite, % max	50	20	10
Free Carbide, % max	1	1	1
Graphite Form, % min (ASTM A 247 Type I & II)	75	90	90

Graphite Size:
(ASTM A 247)

The graphite shall be predominantly size 5, 6 & 7, size 4 nodules shall not exceed 5%, the nodule distribution shall be uniform, random and free from agglomeration and flotation.

Note: Other control locations may be employed provided the finished part microstructure is maintained.

3.6 SUPPLIER'S RESPONSIBILITY

All materials supplied to this specification must be equivalent in all characteristics to the material upon which approval was originally granted.

Prior to making any change in the properties, composition, construction, colour, processing or labelling of the material originally approved under this specification, whether or not such changes affect the material's ability to meet the specification requirements, the Supplier shall notify Purchasing, Toxicology and the affected Materials Engineering activity of the proposed changes and obtain the written approval of the Materials Engineering activity. Test data, test samples and a new code identification are to be submitted with the request.

Substance restrictions imposed by law, regulations or Ford, apply to the materials addressed by this document. The restrictions are defined in Engineering Material Specification WSS-M99P9999-A1, unless a different suffix (e.g., A2 or A3) is specified on the engineering document for the application.

4. APPROVAL OF MATERIALS

Materials defined by this specification must have prior approval by the responsible Materials Engineering activity. Suppliers desiring approval of their materials shall first obtain an expression of interest from the affected Purchasing, Design and Materials Engineering activity. Upon request, the Supplier shall submit to the affected Materials Engineering activity its own laboratory report to the specification (test results, not nominal values), the material designation and code number, and test specimens for Ford evaluation. Upon approval, the material will be added to the Engineering Material Approved Source List.

5. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of the specification.

5.1 MODULUS OF ELASTICITY B1, B2 and B3 150 GPa

5.2 MICROSTRUCTURE (In-Process)

For components requiring subsequent hardening, in-process controls should be introduced so that the ferrite levels are below 10% on the bearing surfaces prior to hardening. This may be achieved by normalising.

SEALED POWER DIVISION
MATERIAL SPECIFICATION

SOFT SLEEVE IRON
CYLINDER BORE SLEEVE

Chemistry

Total Carbon	2.80 - 3.60
Silicon	1.80 - 2.50
Manganese	.50 - .90
Sulphur	.15 max.
Phosphorus	.25 max.
Chromium	.20 - .50
*Copper	.50 - 1.50

*Nickel may be substituted for copper or vice versa to the extent that the total nickel plus copper equals the specified amount.

Other alloying elements may be added in order to obtain the required microstructure and physical properties.

Requirements

1. The primary intent of this specification is to require the mechanical and microstructure properties rather than chemistry. Minor deviations from the prescribed chemistry are permissible providing the hardness, microstructure and physical requirements are met. Under normal controls of melting and casting the chemical requirements shown above will produce the necessary requirements of microstructure, hardness and tensile.

2. The castings shall be cast in a manner suitable to obtain the required properties.

3. Microstructure: The matrix shall consist essentially of fine lamellar pearlite with a maximum of 5% free ferrite at the wearing surface of the finished liner and a maximum of 5% free carbides at any point in the casting. Free carbides and/or steadite must be well distributed in a random pattern with a minimum network formation.

   The graphite structure at the wearing surface of the finished liner at a point approximately 1" from the flange end shall be predominantly AFS-ASTM type A size 4-6. Type B graphite is acceptable if less than 50% of the field viewed at 100X magnification. Types D and E are to be held to a minimum.

LATEST REVISION/DATE:	ISSUED BY: F. J. DeHudy
	APPROVAL
	Materials Eng. R. G. Gh
	Product Eng. J R Brown

ns/315

4. Hardness: The sleeve castings shall be checked for hardness on the O.D. at least 1" from the skirt end of the casting. The hardness range of the castings shall be 212-293 Brinell (3000 kg load), whereas the finished sleeve shall be in the range of 200-285 BHN or equivalent.

5. Tensile Strength: 30,000 psi minimum. The tensile strength shall be determined from a test specimen 6" long taken from the wall of the liner below the flange.

6. Hardenability: The material may be hardened to a minimum hardness of R_c-45 when properly heat treated.

7. Casting Quality: Castings shall be of high quality cast iron and must be uniform throughout as to composition and physical properties. They shall be free from porosity, blow-holes, chilled areas or other physical imperfections.

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SEALED POWER TECHNOLOGIES

APPROVED FOUNDRY METHOD

METHOD NO: 563-03 DATE: February 19, 1990 SHEET 1 OF 2

OPERATION DESCRIPTION:

IRON CONTROL METHOD FOR RECEIVER PRODUCTION OF SPS-51AB4 SOFT SLEEVE IRON

DEPARTMENT 561

WORK COVERAGE: THIS METHOD COVERS THE MELTING AND IRON CONTROL PRACTICES REQUIRED TO PRODUCE SPS-51AB4 SOFT SLEEVE IRON WITH A MAXIMUM CAST WALL OF .400 IN THE RECEIVING FURNACES AT THE HARVEY ST. FOUNDRY.

METALLURGICAL CONTROL AIMS:

CHEMISTRY	HARDNESS
4.25 - 4.40% CARBON EQUIVALENT	179 - 248 BHN
3.40 - 3.60% CARBON	
2.20 - 2.50% SILICON	
2.40 - 2.60% (AS CAST) SILICON	
0.50 - 0.60% MANGANESE	
0.15 - 0.25% CHROME	
0.30 - 0.50% COPPER	
.15 MAX. SULFUR	
.25 MAX. PHOSPHOROUS	
RESIDUAL NICKEL	

BASE IRON MELTING PROCEDURE:

THE STANDARD BASE IRON FROM THE BROWN BOVERI FURNACES SHALL BE USED.

APPROXIMATE CHEMISTRY
3.20% CARBON
1.90% SILICON
0.65% MANGANESE
0.25% CHROME
0.50% COPPER
0.25% NICKEL
.10% MAX. SULFUR
.25% MAX. PHOSPHOROUS

TAP OUT TEMPERATURE FROM BROWN BOVERI FURNACES: 2780 - 2830°F.

DISTRIBUTION			
	FOUNDRY ENGINEERING 3	I.E. DEPARTMENT 2	FOUNDRY Q.A. DEPT 2
	FOUNDRY SUPERVISION 4	METHODS FILE 1	FILE 1

SEALED POWER TECHNOLOGIES

APPROVED FOUNDRY METHOD

METHOD NO: 563-03 DATE: February 19, 1990

OPERATION DESCRIPTION:

IRON CONTROL METHOD FOR RECEIVER PRODUCTION OF SPS-51AB4 SOFT SLEEVE IRON

DEPARTMENT 561

IRON TRANSFERRING PROCEDURE:

1. EACH TRANSFER OF IRON SHALL BE APPROXIMATELY 1800#.
2. THE LADLE SHALL BE KEPT HEATED BETWEEN TRANSFERS OF IRON.
3. THE RECEIVER THAT IS RUNNING SPS-51AB4 SHALL HAVE PRIORITY FOR IRON. THE RECEIVER MUST BE KEPT AS FULL AS POSSIBLE AT ALL TIMES.
4. TRANSFERRING OF TWO (2) LADLES OF IRON TO THE RECEIVER AT THE SAME TIME IS NOT PERMISSABLE.

RECEIVER CHEMISTRY CONTROL:

1. BASE IRON DISKS - EVERY TWO (2) HOURS.
2. INOCULATED DISKS - EVERY TWO (2) HOURS.
3. TEC-TIP SAMPLES - EVERY HOUR.
4. ALLOY ADDITIONS REQUIRED TO MAINTAIN CHEMISTRY CONTROL LIMITS TO BE PER QUALITY ASSURANCE PERSONNEL.
5. PIG IRON SHALL BE ADDED TO THE RECEIVER TO MAINTAIN HARDNESS CONTROL AT THE RATE OF THREE (3) PER 1/2 HOUR (APPROX. 120#).

RECEIVER TEMPERATURE CONTROL:

POWER INPUT TO THE RECEIVER SHALL BE ADJUSTED AUTOMATICALLY OR MANUALLY TO MAINTAIN 2700-2800°F.

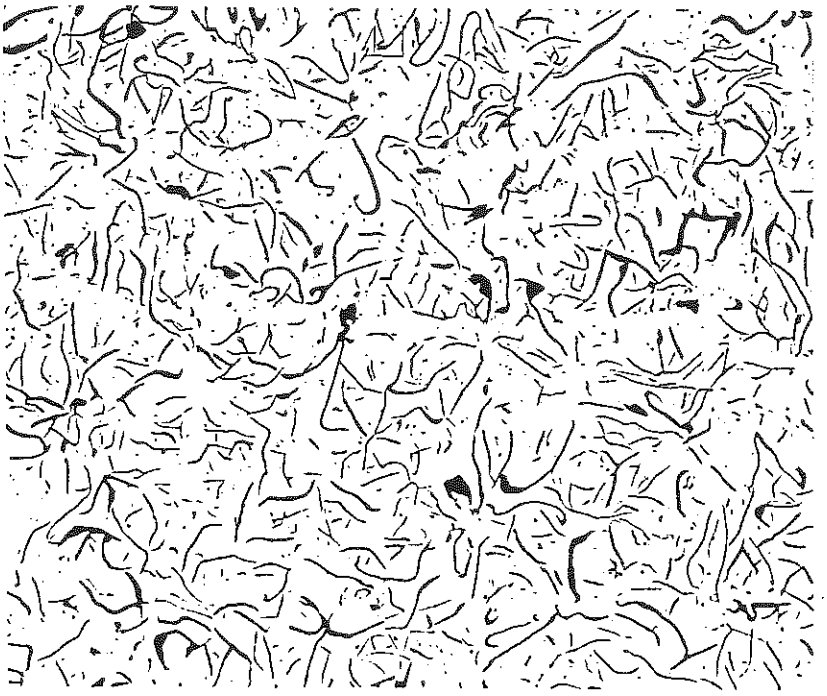
MISCELLANEOUS:

1. IRON CONTROL OPERATOR TO FOLLOW RECEIVER CLEANLINESS PROCEDURES.
2. MOLD TEMPERATURES - THE MOLD TEMPERATURES ON THE SPINNERS SHALL BE KEPT WITHIN A RANGE OF 475-700°F, WITH THE OPTIMUM RUNNING RANGE TO BE 600-700°F.

J. KUZMA
FOUNDRY METHODS ENGINEER

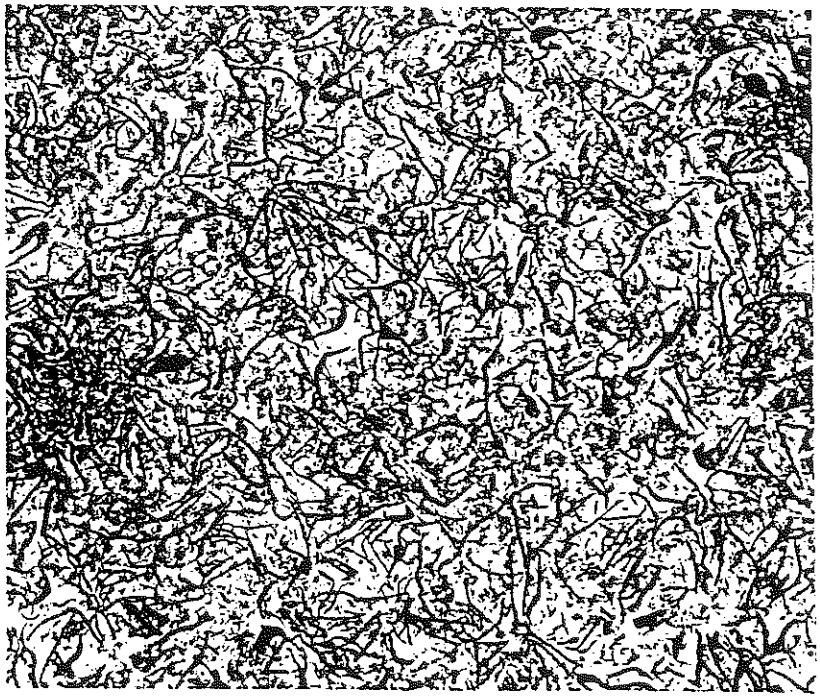
DISTRIBUTION			
	FOUNDRY ENGINEERING 3	I.E. DEPARTMENT 2	FOUNDRY Q.A. DEPT 2
	FOUNDRY SUPERVISION 4	METHODS FILE 1	FILE 1

N-4583 As Cast 100X



Graphite structure of centrifugally-cast SPS-51AB4 sleeve iron.

N-4584 2% Nital Etch 100X



General structure of centrifugally-cast SPS-51AB4 sleeve iron.

SPECIFICATION NUMBER SPS-51 AB-4

ISSUE DATE October 31, 1989

SEALED POWER DIVISION
MATERIAL SPECIFICATION

TENTATIVE
SOFT SLEEVE IRON

Requirements

Material is basically SPS-51 except for the additional requirements necessary to produce a soft cast iron sleeve material for dry liner applications requiring good machinability and wear characteristics.

A. Hardness: The hardness of the casting shall be 179-248 3000 kg BHN or equivalent.

B. Chemistry:

Total Carbon	3.25 - 3.70
Carbon Equiv.	4.45 max.
Silicon	2.10 - 2.60
Chrome	.15 - .40
Nickle & Copper	.30 - 1.00

C. Tensile strength and hardenability requirements of SPS-51 are not required for this material.

D. This material is limited to section sizes of .400 in. (10 mm) maximum wall thickness.

PROPOSED MATERIAL:

LATEST REVISION/DATE:	ISSUED BY: R. Cribbs
	APPROVAL
	Materials Eng. R. Cribbs
	Product Eng. [illegible]

ns/677

ROMEO ENGINE PLANT
OIL MIST/DUCT COLLECTION
AIR USE PERMIT REVISION DATA SHEET

UNIT #	LOC.	DEPT.	CAPACITY CFM	EMMISSION TYPE	* UNCONTROLLED RATE ESTIMATED #/HR.	** CONTROLLED RATE ESTIMATED #/HR.	COLLECTION EFFICIENCY	STACK DISCHARGE HEIGHT AFF (FEET)	STACK DIAMETER AT DISCHARGE (INCHES)	OPERATING SCHEDULE HRS/WEEK	SYSTEM START UP DATE
MOM-22	R-18	Al.Blk	25,000	Oil Mist	8.6	0.086	99.0%	41	32	102	Jan. 1991
MOM-23	Y1-20	Al.Blk	25,000	Oil Mist	8.6	0.086	99.0%	41	32	102	Jan. 1991
MOC-2	Y1-16	Al.Blk	5,000	C.I.Dust	3.5	0.035	99.0%	40	20	102	Jan. 1991

* Estimated on similar installations.

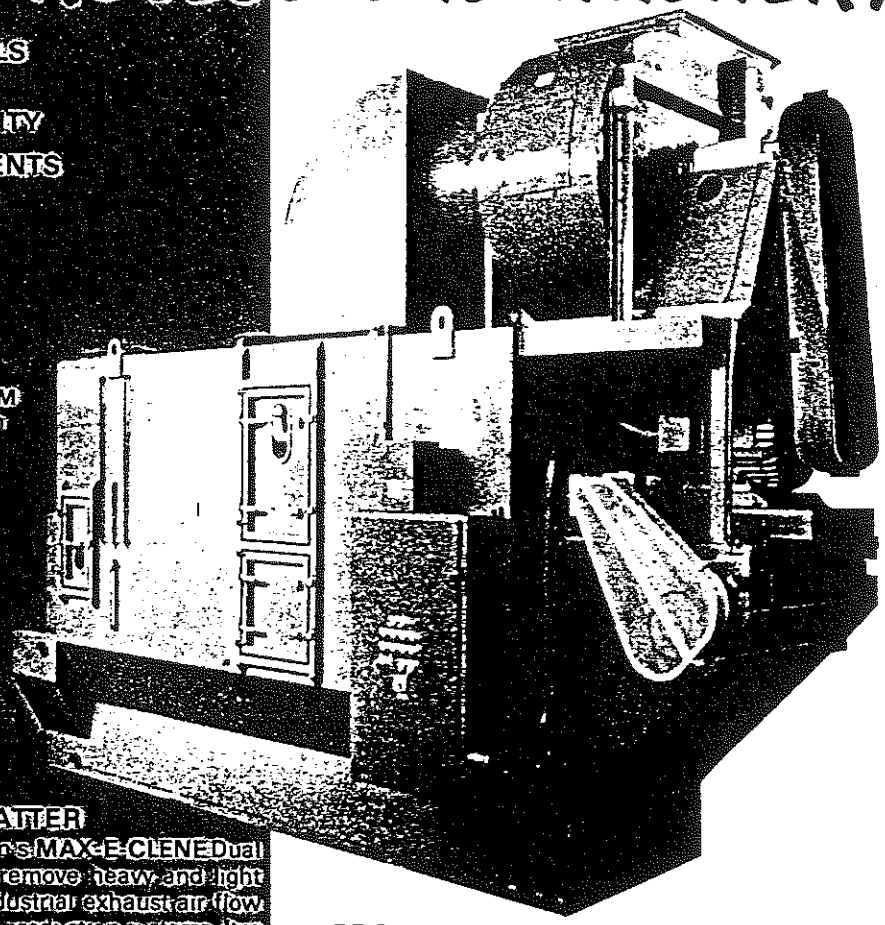
** Estimated based on vendor information and testing on similar installations.

OP 10 SCRUBBER
(MAIN BEARING CAP)

MAX-E-CLENE

DUAL THROAT AIR AND PROCESS GAS WASHER...

- NO MOVING MECHANICALS IN THE AIR STREAM
- WET TYPE — HIGH CAPACITY
- LOW ENERGY REQUIREMENTS
- EFFICIENCIES TO 99.9% on Sub-Micron Particles



40,000 CFM Unit Shown

REMOVE HEAVY AND LIGHT AIRBORNE PARTICULATE MATTER

Monroe Environmental Corporation's MAX-E-CLENE Dual Throat Air Washer is designed to remove heavy and light airborne particulate matter from industrial exhaust air flow systems, flue gases and process gas production systems. It is a wet type high volume high velocity air and gas washer with no internal moving parts, water jets or other mechanical components to plug, wear out or malfunction causing shut-down. The air washer is completely self-contained in a single housing and needs only connection to normal plant electrical, water supply and air flow systems.

RECIRCULATE CLEAN WASHED AIR

In many installations such as buffing and polishing, metal finishing and grinding, foundry operations etc. it is possible to recirculate clean washed air back to the work area free of airborne contaminants, fumes and odors and still claiming much of the heating, or cooling necessary for worker comfort. This not only reduces cost of air make-up systems but also reduces heating and cooling costs.

UNLIMITED CAPACITIES

MAX-E-CLENE Dual Throat Air Washers are available in capacities of 3,000 CFM to 60,000 CFM in a single unit. Multiple unit installations are available to 500,000 CFM or larger if desired.

FULLY TESTED BEFORE SHIPMENT

Each Dual Throat Air and Process Gas Washer is fully assembled in our shop before shipment including fan and drive motor, centrifugal wash liquid pump, electrical control panel and drain separator and oil recovery unit (if provided). The units then filled with water and tested to assure proper performance. Some washers because of their physical size must then be partially disassembled before shipping.

PROVEN HIGH EFFICIENCIES

MAX-E-CLENE Dual Throat Air Washers are currently operating continuously and with sustained efficiency on many types of industrial, municipal and mining installations in the U.S.A. and foreign countries.

Tests by independent laboratories have shown that many of these units, and systems, are removing various types of airborne particulate at efficiencies up to 99.9% on extremely heavy inlet dirt loadings.

Some of the many types of airborne contaminants that can be removed are shown below.

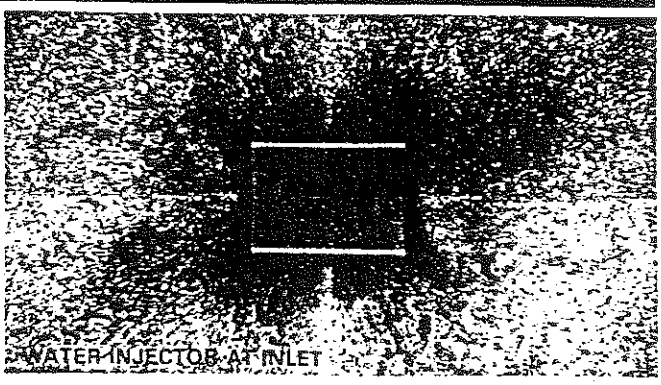
Aluminum Chloride Fumes	Fly Ash	Metal Buffing/Polishing Dust
Aluminum Fluoride Fumes	Hide and Tallow Odors	Municipal Incinerator Dust
Ammonium Chloride Fume	Hydrogen Chloride	Nitric Acid Mist
Animal By-products Odors	Hydrogen Sulphide	Oil Fumes or Mist
Carbon Dust	Hydrochloric Acid Fumes	Paint Overspray
Cast Iron Machining Fines	Iron Oxide	Sewage Treatment Odors
Cement Dust	Iron Ore Dust	Soda Fumes
Chromic Acid Fumes	Lead Oxide Fumes	Sulphur Dioxide-Trioxide
Coal Dust	Leather Buffing Dust	Sulphuric Acid Fumes
Explosive Dusts	Limestone Dust	Synthetic Resin Fumes
Food Processing Odors	Magnesium	Zinc Oxide Fumes
Formaldehyde Fumes	- Chloride Fumes	Zinc Machining Dust
Fluorine Compounds	- Fluoride Fumes	

MONROE ENVIRONMENTAL CORPORATION
MAX CLENE

MAX-E-CLENE DUAL THROAT AIR AND PROCESS GAS WASHER

HIGH VOLUME WATER INJECTOR

The Dual Throat Air Washer contains a high volume wash water injector system located in the main air stream intake tunnel. This injector system delivers an initial surface impingement shock to heavy inlet dirt loads, which removes most large and small airborne particulate matter. High velocity atomization then takes over as the inlet air is directed through the dual, adjustable scrubbing throats, where sub-micron sized particles and fumes are removed.

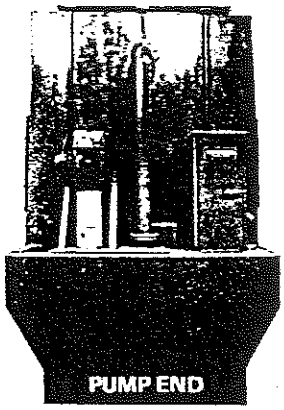


WATER INJECTOR AT INLET

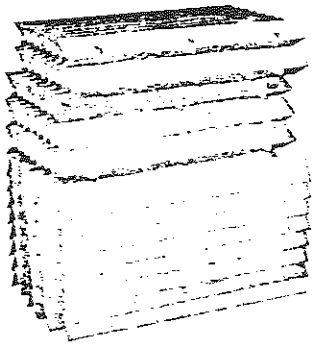
DUAL ADJUSTABLE SCRUBBING THROATS

The dual, adjustable air scrubbing throats can quickly and easily be adjusted to balance the pressure drop through the air flow system at start-up. In addition, future changes to the system can easily be accommodated.

This adjustment feature eliminates the need for air flow dampers or blast gates, which are prone to build-up of airborne particulate matter and require periodic maintenance. In addition, the energy loss associated with air flow dampers and blast gates is utilized in the wash zone of the MAX-E-CLENE Dual Throat Air and Process Gas Washer, thus improving overall efficiency of the unit or installation.



PUMP END



MOISTURE ELIMINATORS

DOUBLE ROW MOISTURE ELIMINATORS

After passing through the turbulent dual throat wash zone, the clean washed air continues through a large, double row, moisture eliminator section. Water droplets and any airborne moisture accumulated in the air stream are removed and drain back to the wash liquid reservoir tank.

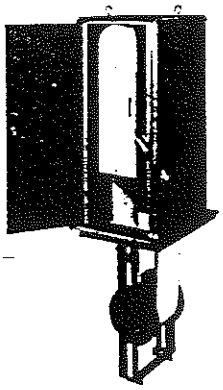
The clean and relatively dry air is recirculated back to the work area or directed to exhaust ducts for discharge.

Moisture eliminators are made of various materials as required, including galvanized steel, stainless steel and polypropylene.

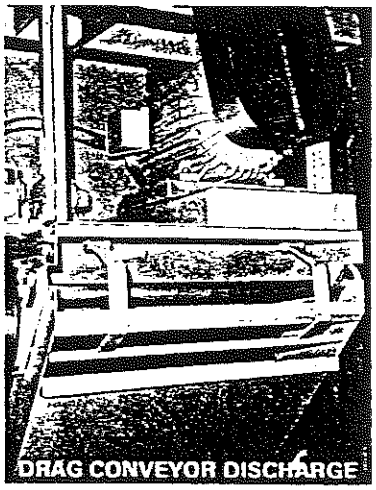
MINIMUM WASH LIQUID REQUIREMENTS

The Dual Throat Air Washer will not create a waste water disposal problem under normal operating conditions. Each unit has a self-contained wash liquid reservoir and a recirculating centrifugal pump. This allows the addition of neutralizing chemicals where required, without the need for dumping. Automatic drag conveyors for sludge removal, and oil recovery units (when provided) keep the wash liquid clean for more efficient operation.

An automatic, float type, water valve is provided to replenish wash liquid lost through evaporation and maintain proper liquid operating levels.



OIL RECOVERY UNIT



DRAG CONVEYOR DISCHARGE

OIL RECOVERY UNITS

Where installations contain some airborne oil mist, it is suggested that air washers be equipped with a MAX-E-CLENE Belt Type Oil Recovery Unit, to remove accumulated oil from the wash water.

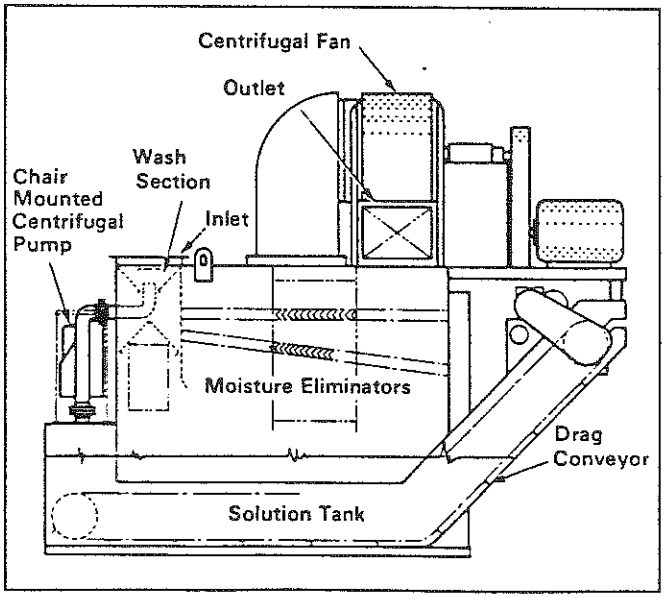
These units, mounted in an area of tranquil oil accumulation, are designed for minimum wash water carry-over. Many recovered oils can be returned to process, burned as fuel or sold for other purposes without further processing.

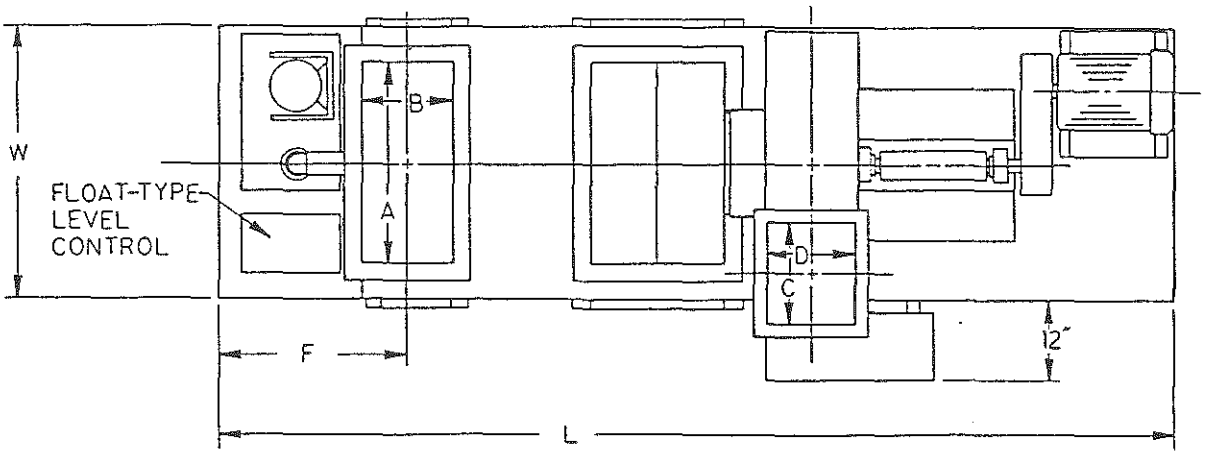
DRAG CONVEYOR

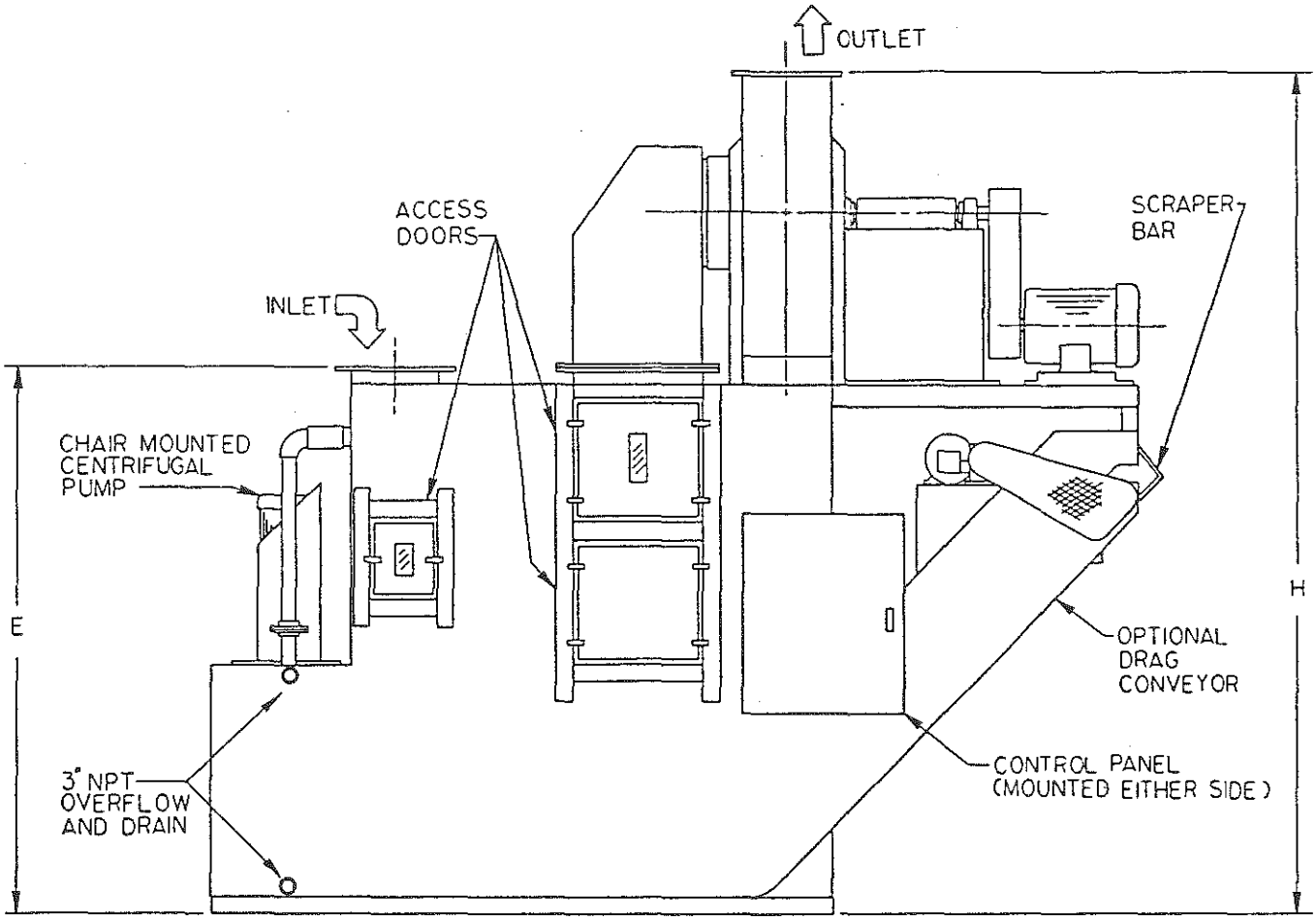
Many Dual Throat Air Washers are equipped with a drag conveyor to remove heavy, settled contaminants from the bottom of the wash water reservoir. The design of the bottom tank concentrates settled material in an area where the drag flights can remove it efficiently and continuously.

MATERIALS OF CONSTRUCTION

Dual Throat Air Washers are normally constructed of mild steel. However, where the intended application will contain corrosive or highly abrasive contaminants, stainless steel or other more wear-resistant materials are recommended. Air washers may also be constructed with reinforced fiberglass or the internal components may be coated with suitable materials.



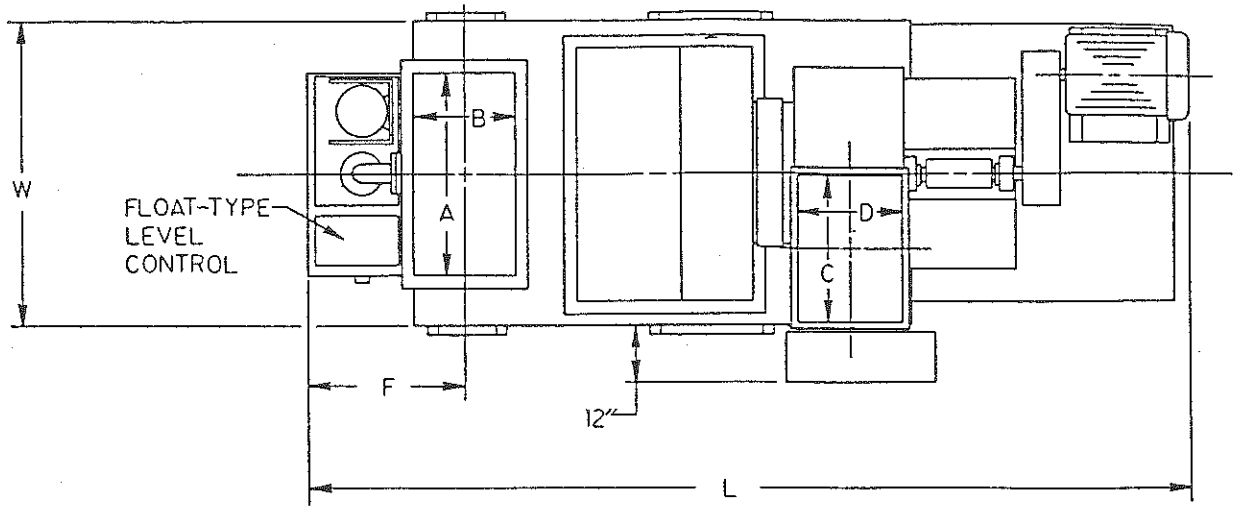


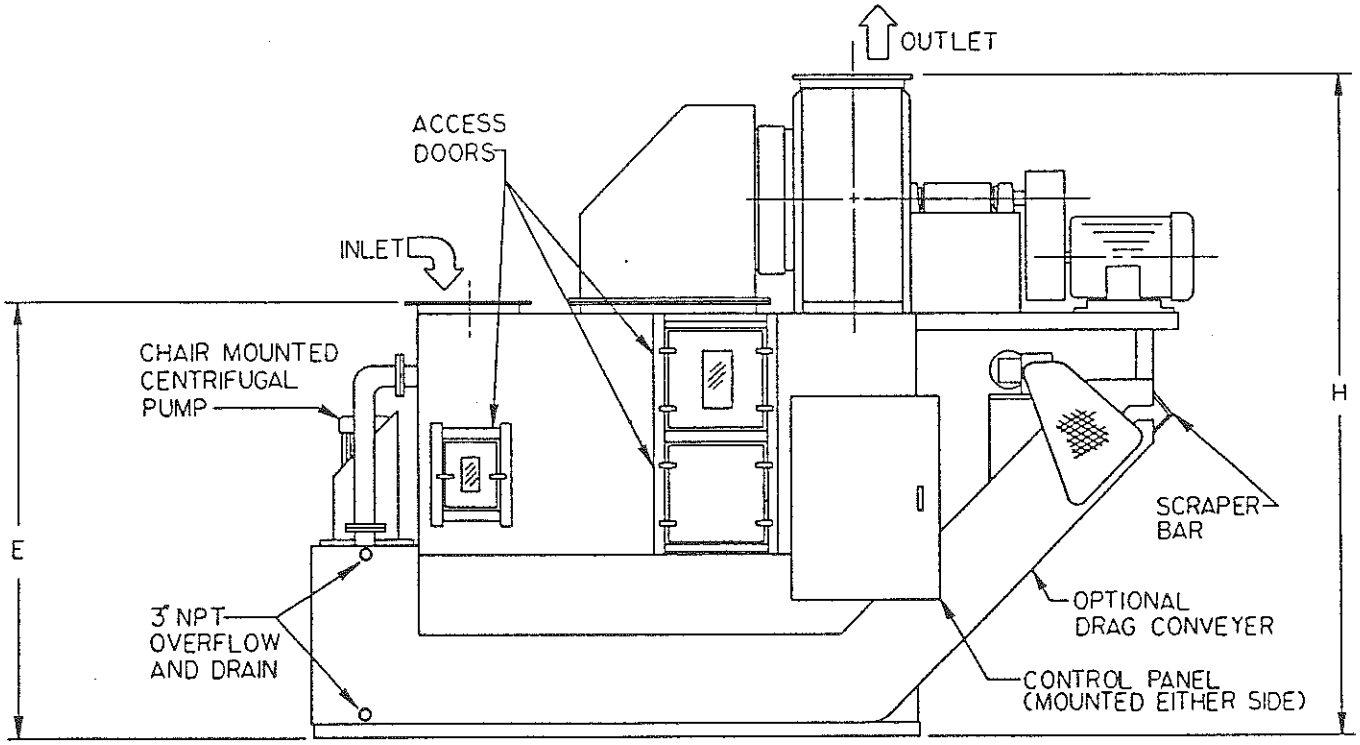


DIMENSIONS ARE IN INCHES AND FOR ESTIMATING ONLY. DO NOT USE FOR CONSTRUCTION.
HORSEPOWER SHOWN IS BASED ON 6 INCHES EXTERNAL STATIC PRESSURE.
FAN IS AVAILABLE WITH CW OR CCW ROTATION AND ANY STANDARD DISCHARGE POSITION.

MODEL NO.	NOMINAL CFM	A	B	C	D	E	F	W	L	H	MOTOR HP	MOTOR RPM	WEIGHT DRY LBS.
DT-030	3000	18	12	11	10	96	34	48	138	126	15	1800	4500
DT-050	5000	24	12	15	13	96	34	48	140	137	20	1800	5500
DT-075	7500	26	16	20	15	99	34	48	156	145	25	1800	6100
DT-100	10000	36	16	22	16	99	34	48	172	153	30	1800	6500
DT-125	12500	42	16	29	22	102	34	60	172	153	40	1800	7800
DT-150	15000	36	24	32	23	102	37	60	188	157	40	1800	9600

MONROE ENVIRONMENTAL CORP. MONROE, MICHIGAN	3000-15000 CFM DUAL THROAT AIR WASHER	DRAWING NO DT-1-86 DATE 11-20-86 REV. 6-23-87

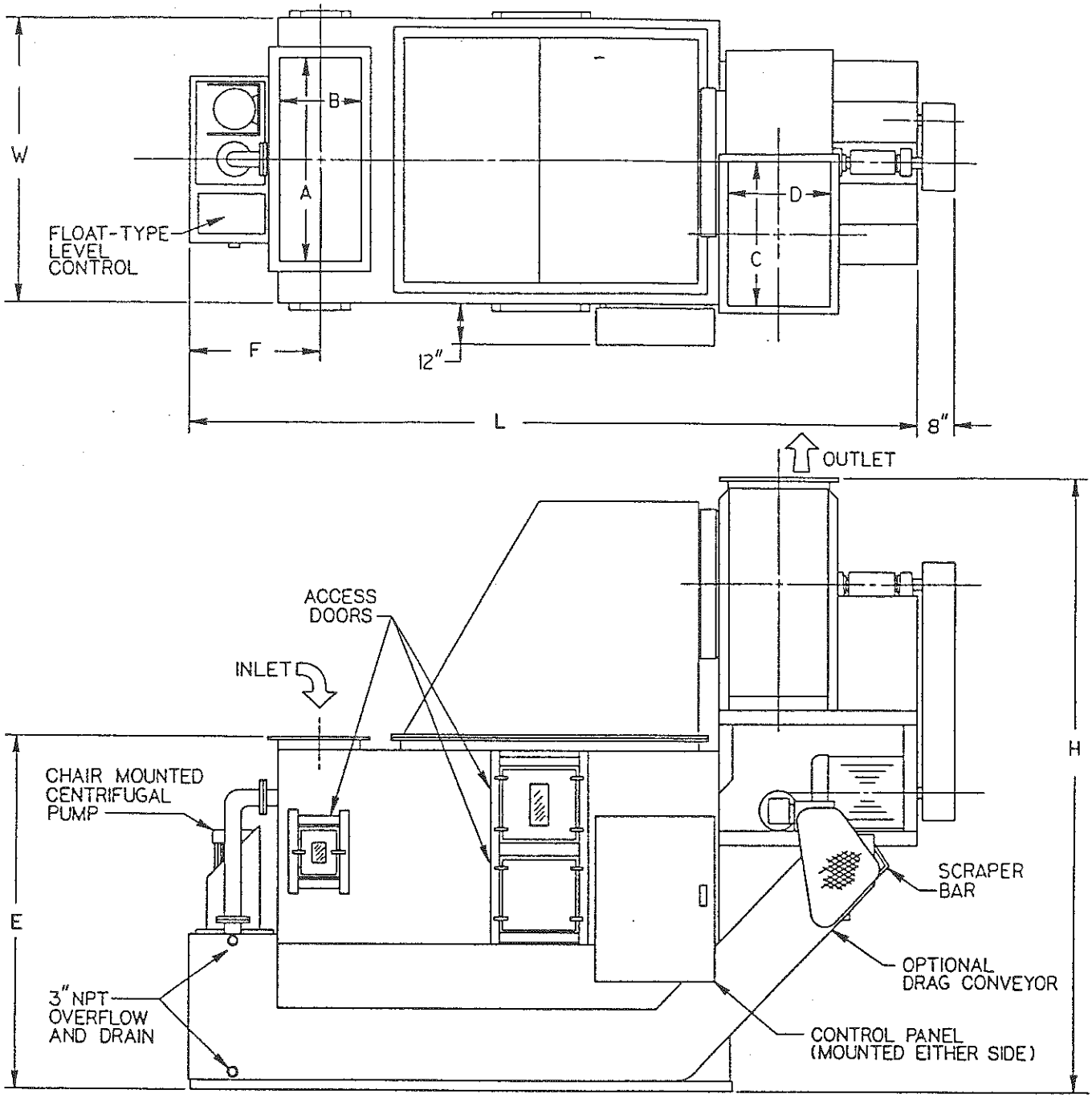




DIMENSIONS ARE IN INCHES AND FOR ESTIMATING ONLY. DO NOT USE FOR CONSTRUCTION.
HORSEPOWER SHOWN IS BASED ON 6 INCHES EXTERNAL STATIC PRESSURE.
FAN IS AVAILABLE WITH CW OR CCW ROTATION AND ANY STANDARD DISCHARGE POSITION.

MODEL NO.	NOMINAL CFM	A	B	C	D	E	F	W	L	H	MOTOR HP	MOTOR RPM	WEIGHT DRY LBS.
DT-175	17500	42	24	32	23	102	38	72	192	157	50	1800	10200
DT-200	20000	48	24	36	27	102	38	72	203	162	60	1800	10700
DT-225	22500	54	24	36	27	102	38	72	208	162	60	1800	11400

MONROE ENVIRONMENTAL CORP. MONROE, MICHIGAN	17500-22500 CFM DUAL THROAT AIR WASHER	DRAWING NO DT-2-86 DATE 11-20-86 REV. 6-23-87



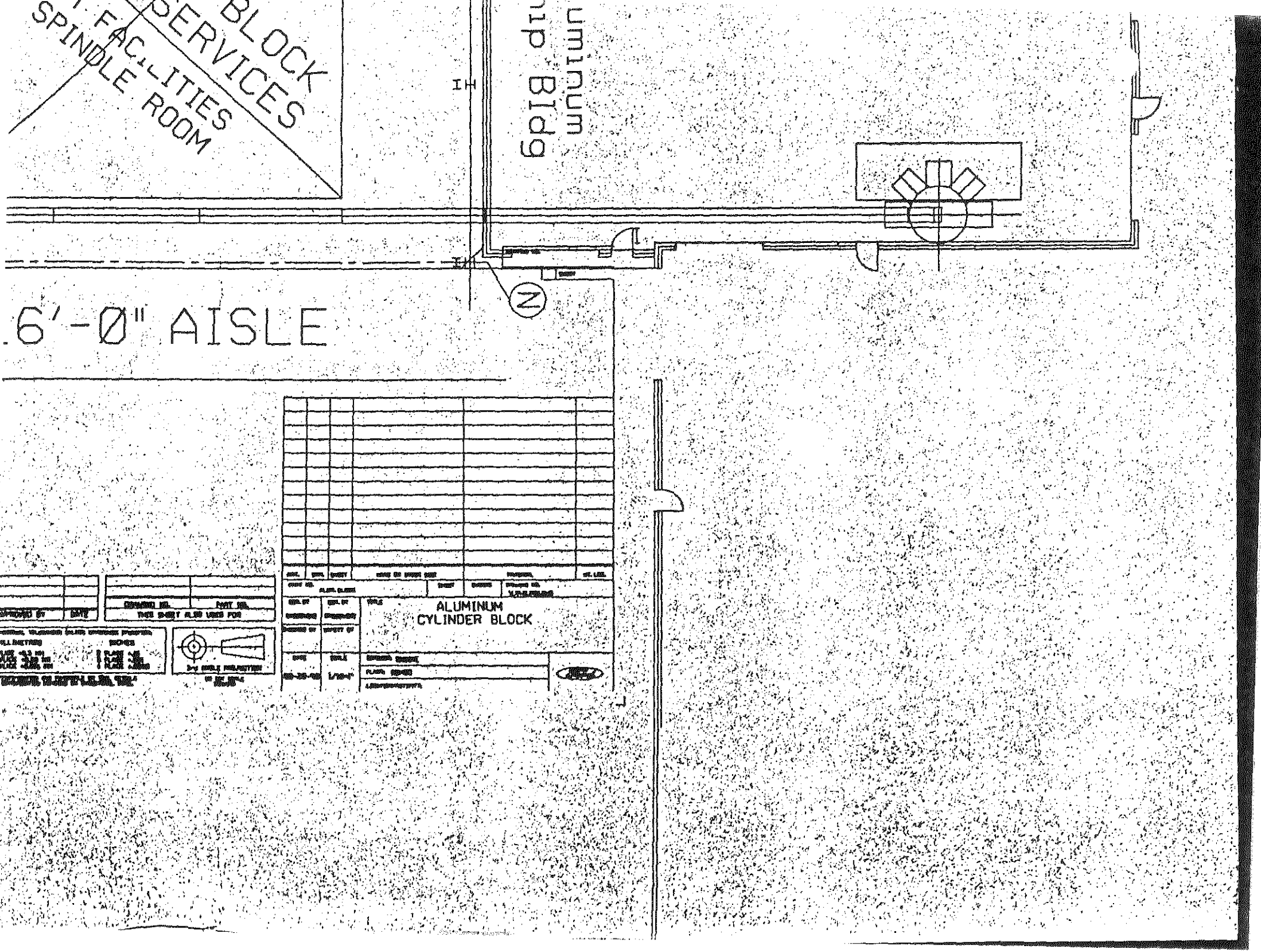
DIMENSIONS ARE IN INCHES AND FOR ESTIMATING ONLY. DO NOT USE FOR CONSTRUCTION.
HORSEPOWER SHOWN IS BASED ON 6 INCHES EXTERNAL STATIC PRESSURE.
FAN IS AVAILABLE WITH CW OR CCW ROTATION AND ANY STANDARD DISCHARGE POSITION.

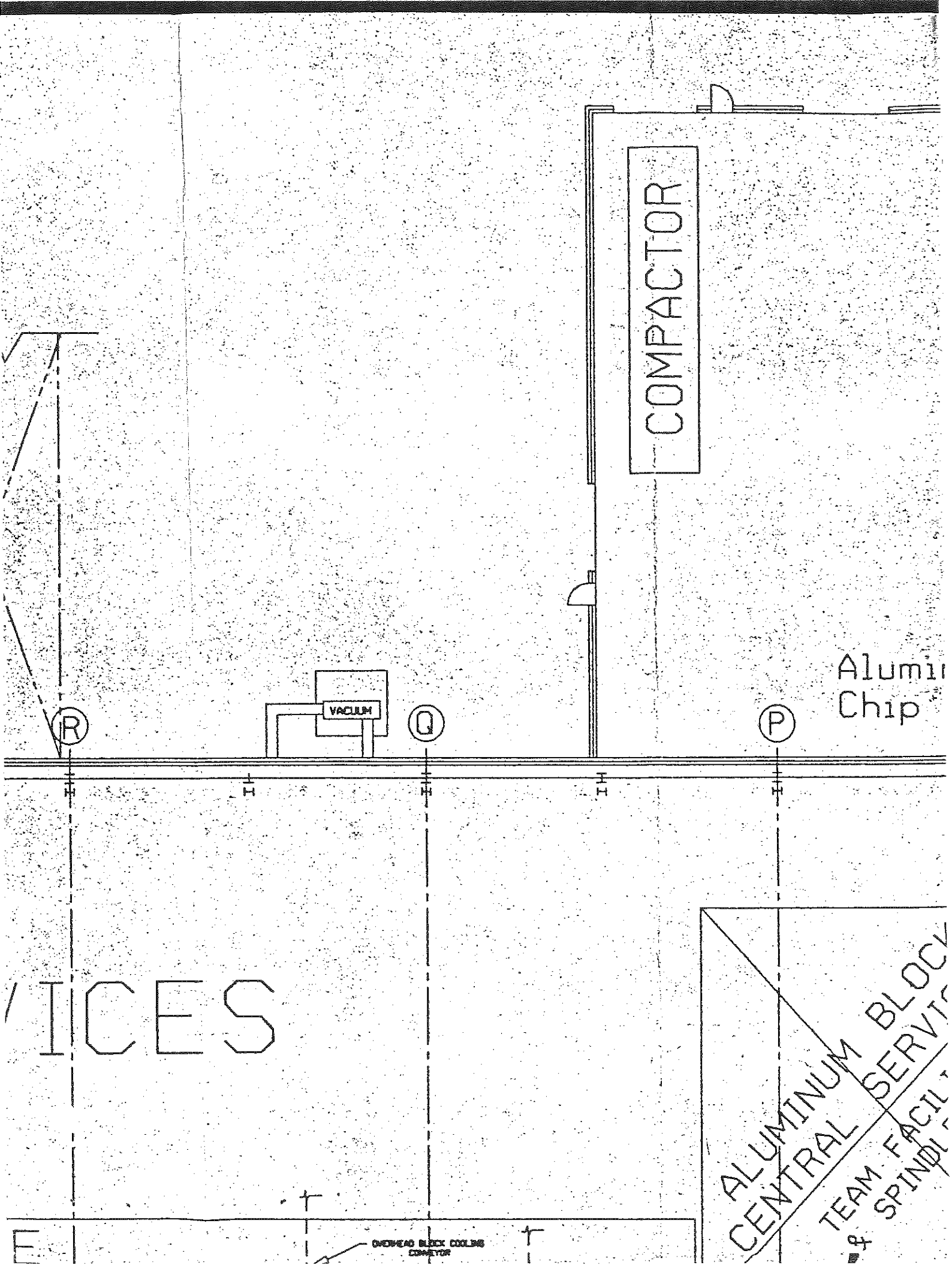
MODEL NO.	NOMINAL CFM	A	B	C	D	E	F	W	L	H	MOTOR HP	MOTOR RPM	WEIGHT DRY LBS.
DT-250	25000	50	24	39	29	102	38	84	189	176	75	1800	12500
DT-300	30000	60	24	39	29	114	38	84	215	176	100	1800	13950
DT-350	35000	54	30	43	32	120	41	84	230	186	100	1800	15800
DT-400	40000	60	30	48	36	126	41	84	243	198	125	1800	16720
DT-450	45000	66	30	48	36	130	41	84	243	202	125	1800	17600

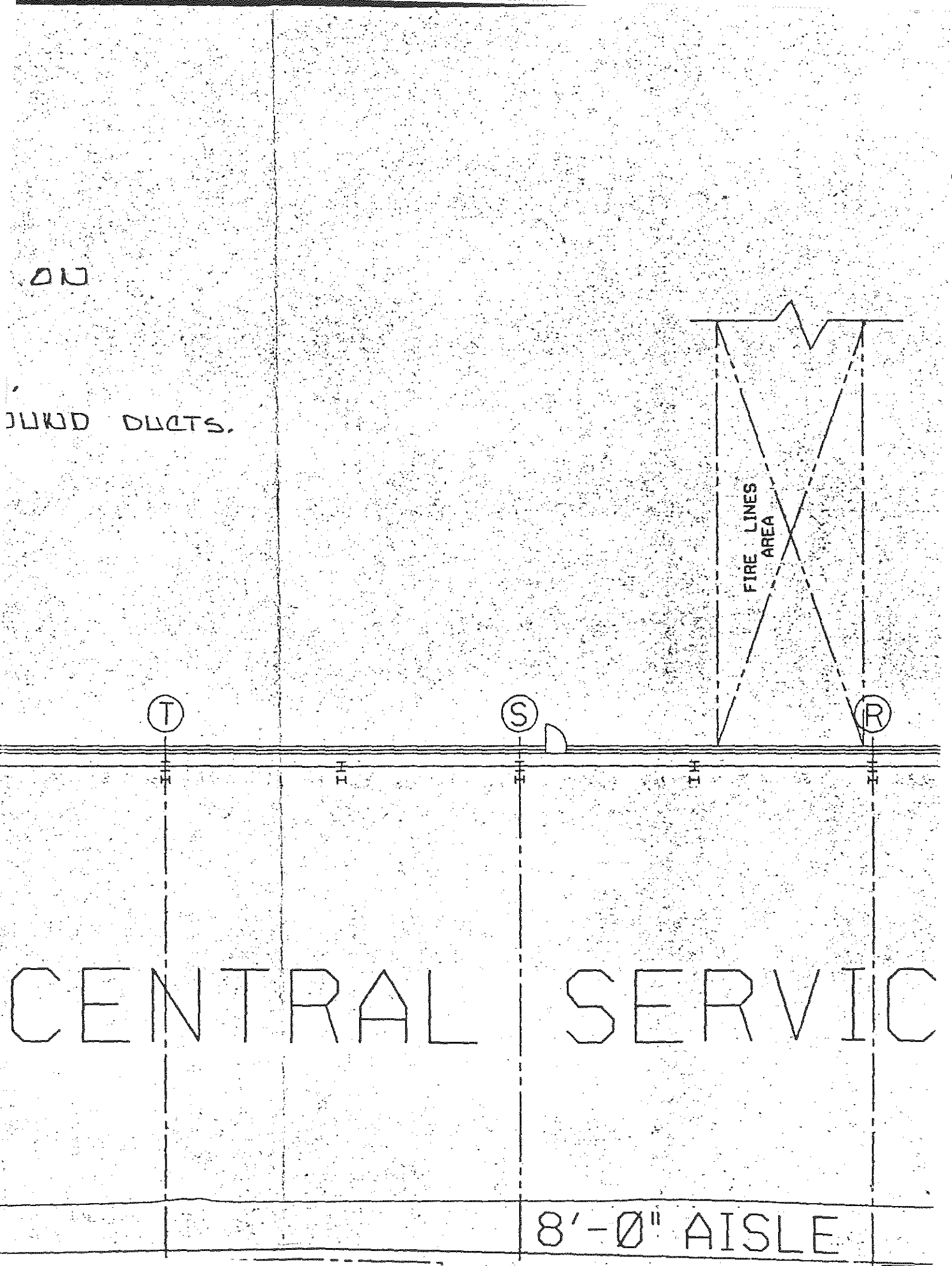
MONROE ENVIRONMENTAL CORP.
MONROE, MICHIGAN

25000-45000 CFM
DUAL THROAT AIR WASHER

DRAWING NO DT-3-86
DATE 11-20-86 REV. 6-23-87


BLOCK
SERVICES
FACILITIES
SPINDLE ROOM
uminum
ip Bldg
6'-0" AISLE
ALUMINUM
CYLINDER BLOCK

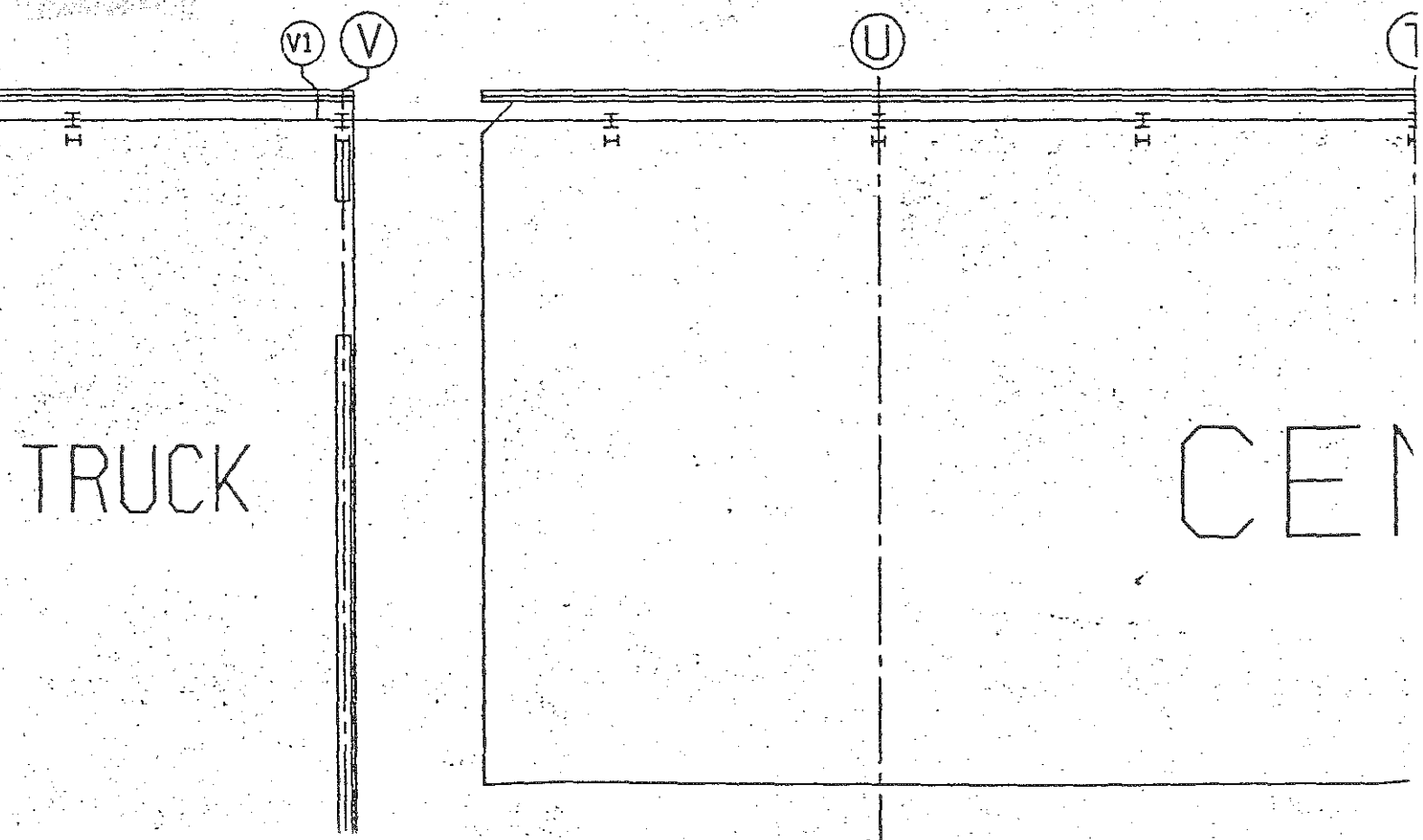

COMPACTOR
VACUUM
R
Q
P
Alumi
Chip
ICES
ALUMINUM BLOC
CENTRAL SERVI
TEAM FACIL
& SPINDL
OVERHEAD BLOCK COOLING
CONVEYOR


ON
UND DUCTS.
FIRE LINES AREA
T
S
R
CENTRAL SERVIC
8'-0" AISLE

NOTES

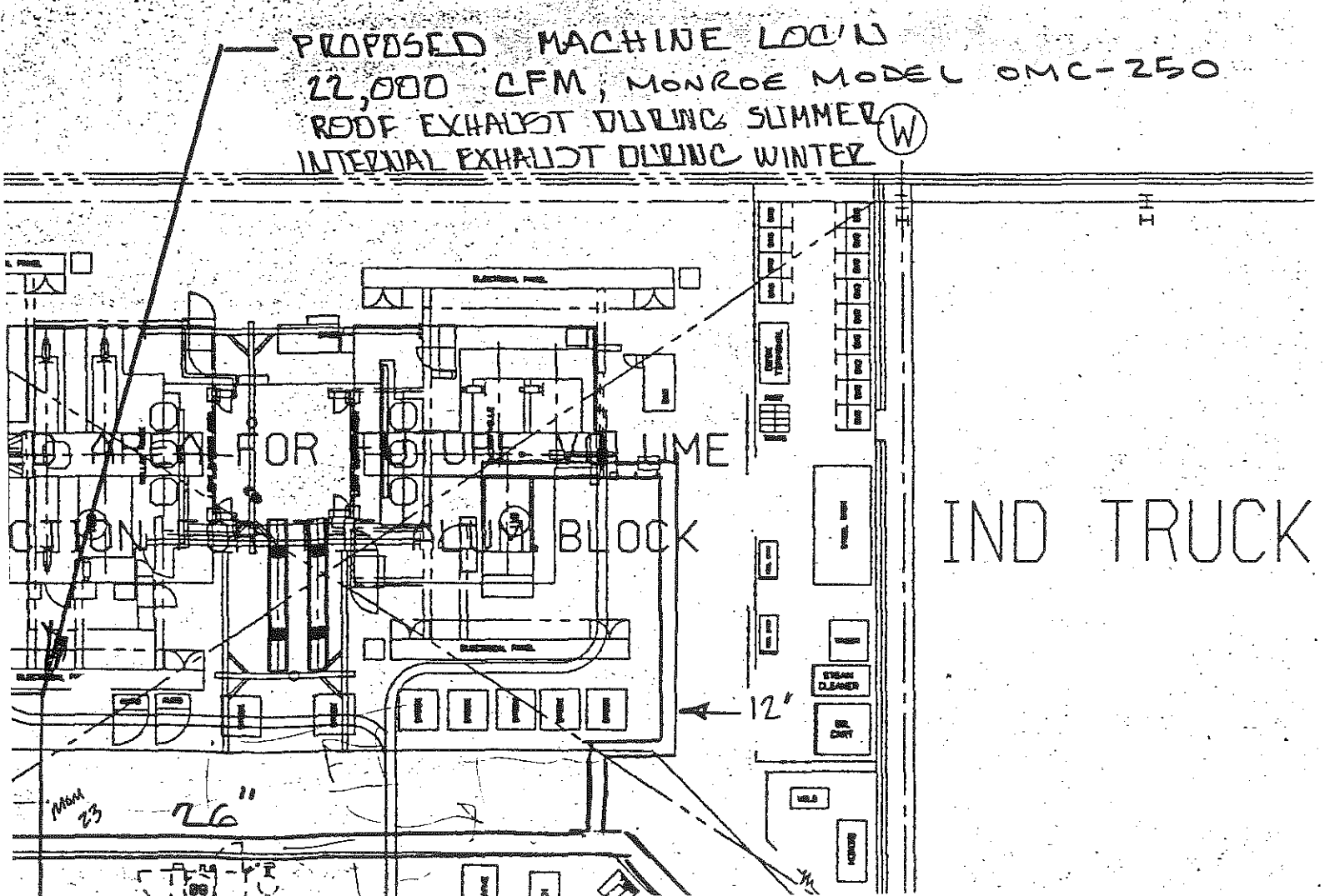
1. DUCT SIZES SHOWN ARE BASED ON 3000 FPM MINIMUM.
2. CFM VALUE IS BASED ON SUBMITTED EQUIPMENT DATA SHEETS.
3. DUCT SIZES SHOWN ARE FOR ROUND DU

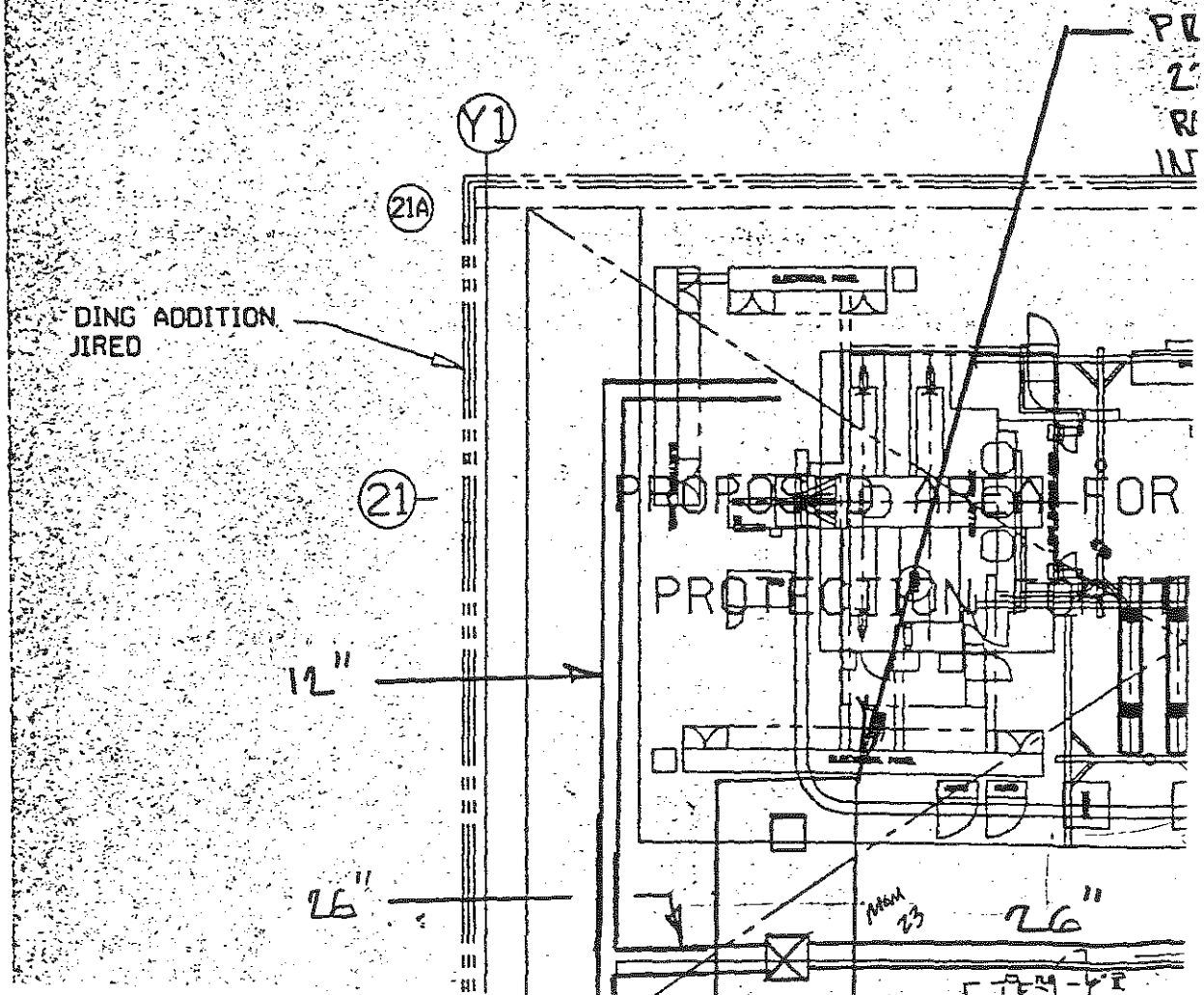
-250

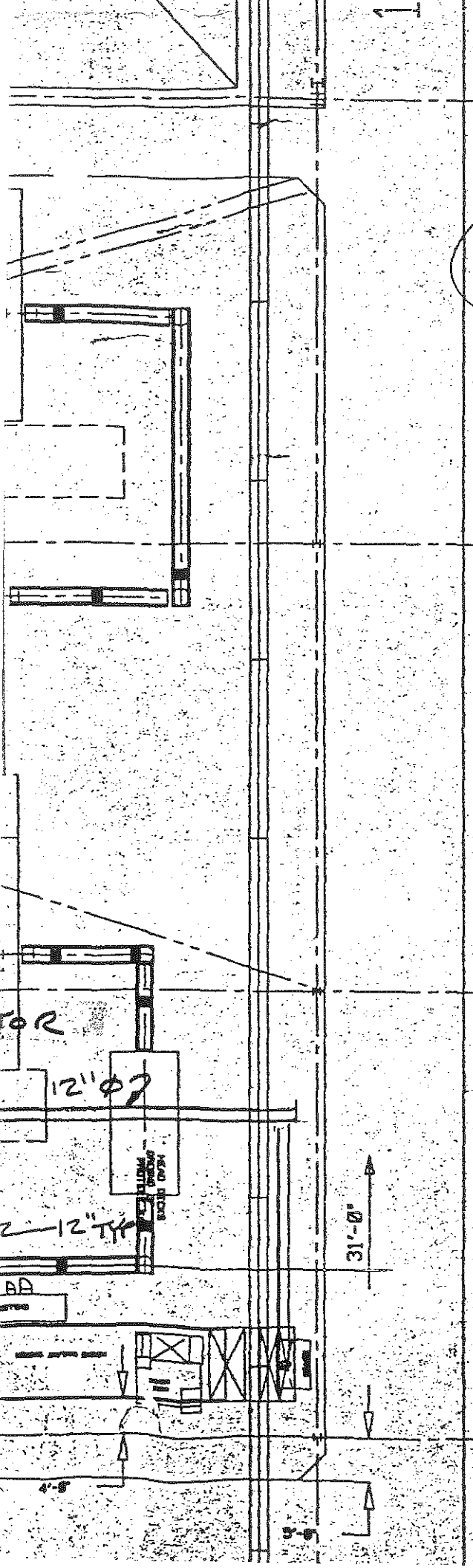


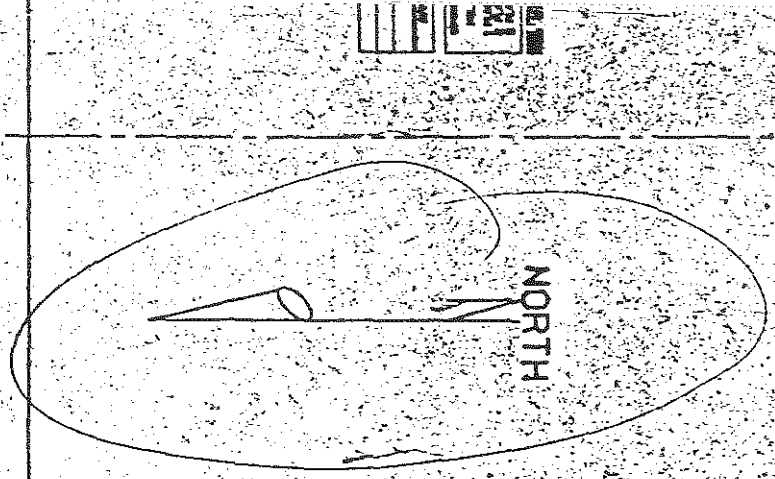
NOTES

1. DUCT
3000
2. CFM
SUBI
3. DUC




Y1
21A
DING ADDITION
JIRED
21
PROPOSED AREA FOR
PROTECTION UNIT
12"
26"
26"





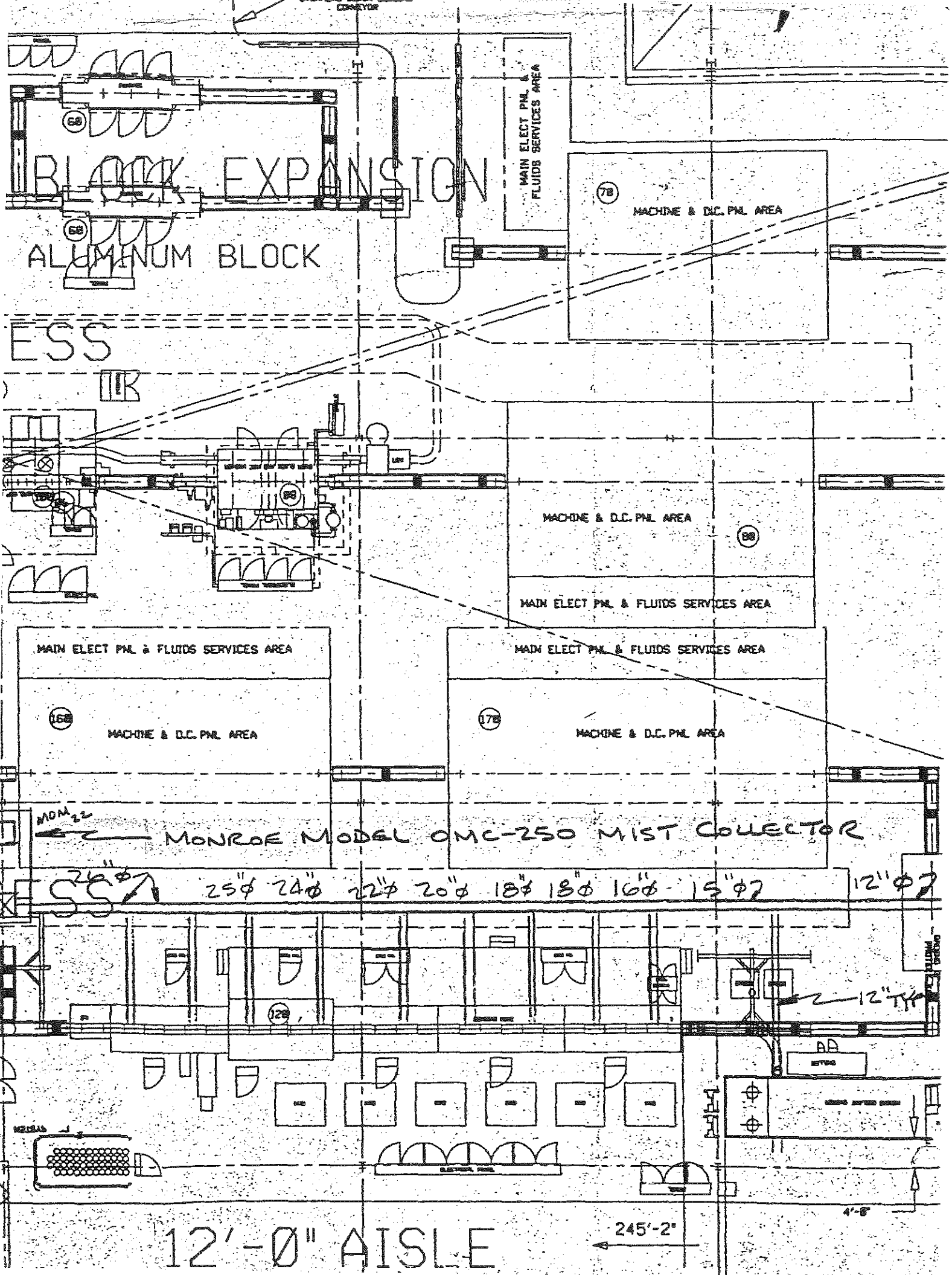
COLOR KEY

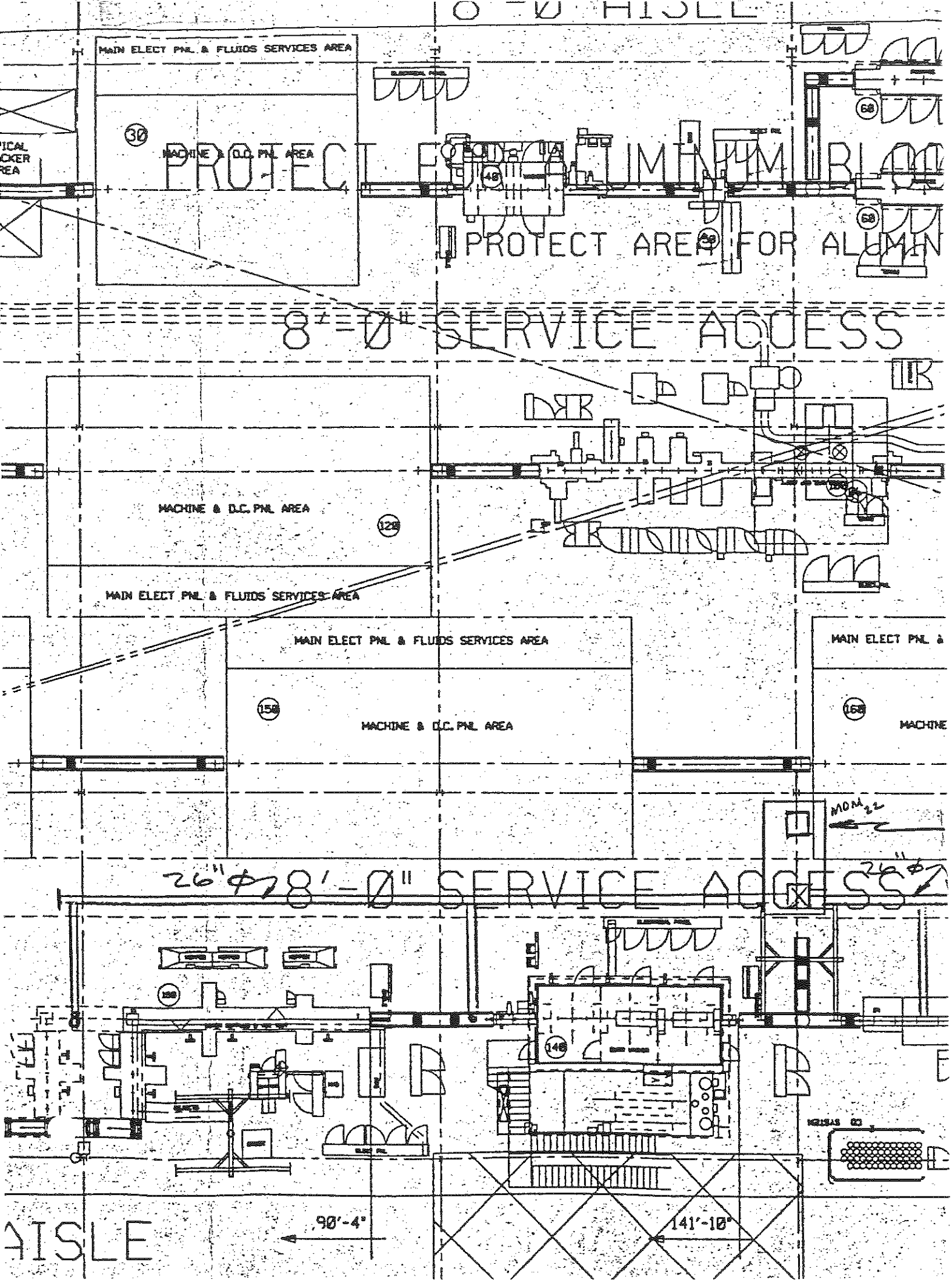
- 38 K MACHINES
- MACHINES FOR INCREASED VOLUME REQUIREMENTS
- PRELIMENARY FOUNDATION OUTLINES
- COOLANT AND DUST COLLECTION SYS.
- PROPOSED BASE AUTOMATION
- FUTURE AUTOMATION
- AISLE DESIGNATION

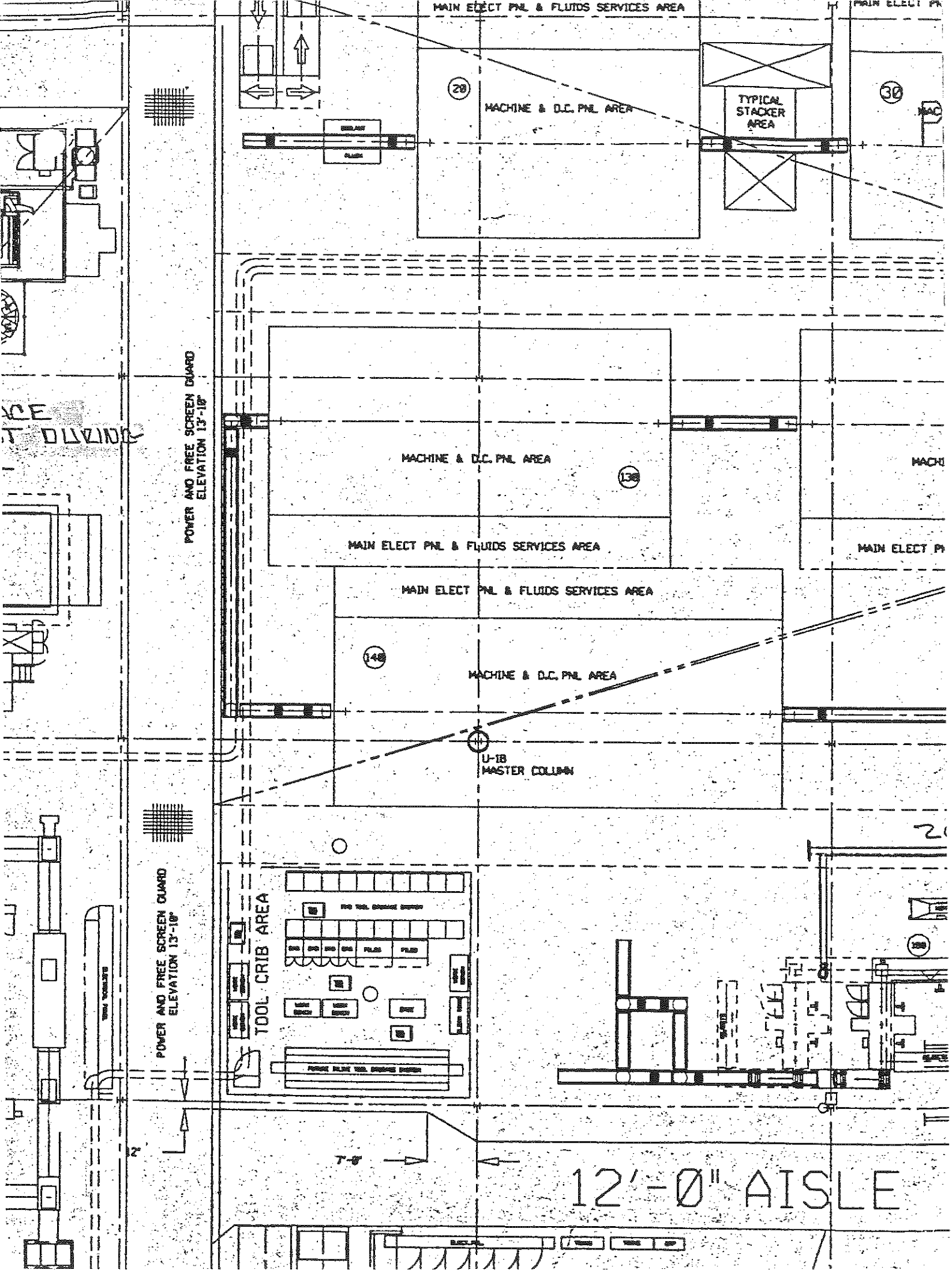
0'-00" → INDICATES DIMENSION TO MASTER COLUMN U-18.

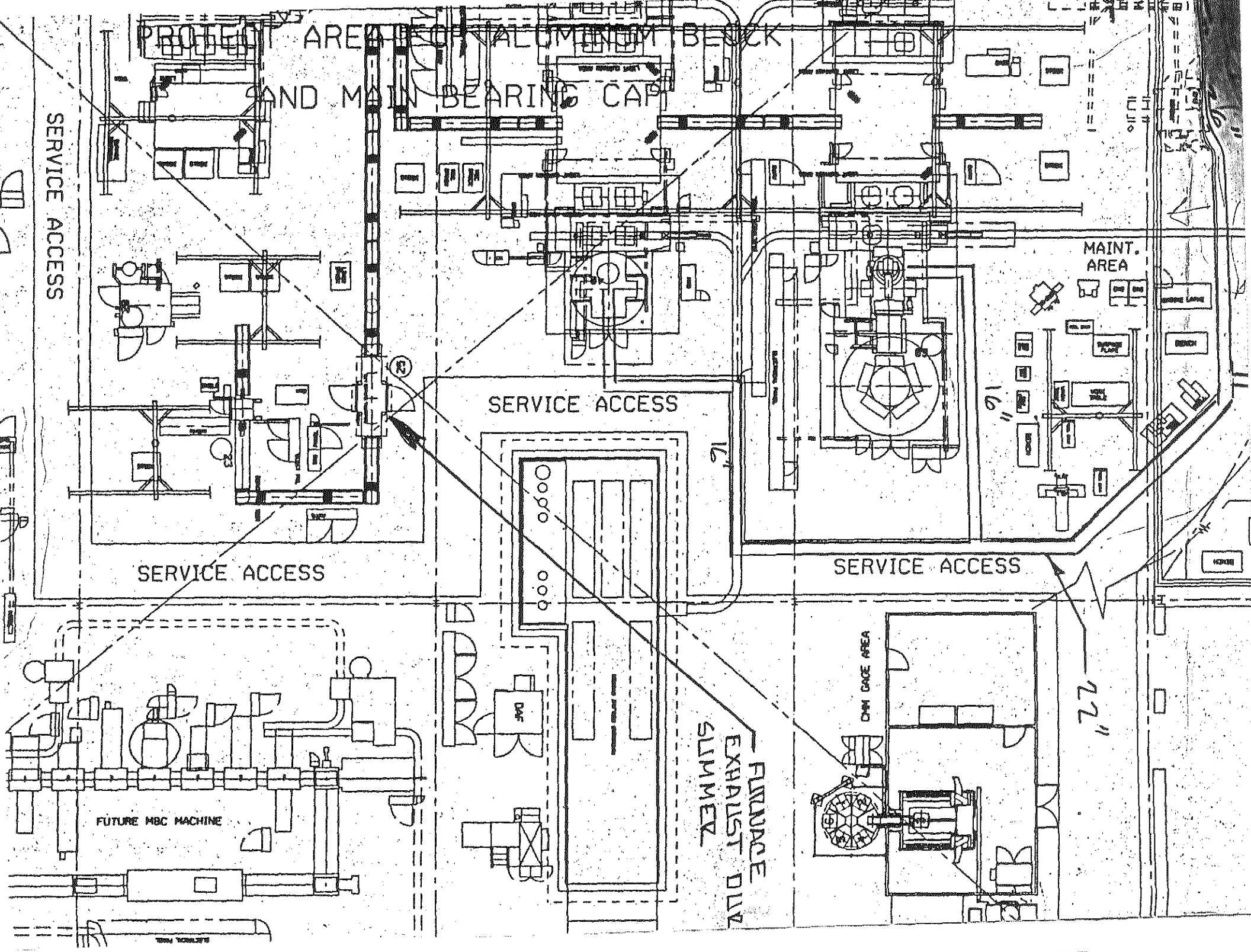
NOTE: THE FOLLOWING INDICATES THE LOCATING DIMENSION BY MACHINE TO THE MASTER COLUMN U-18.

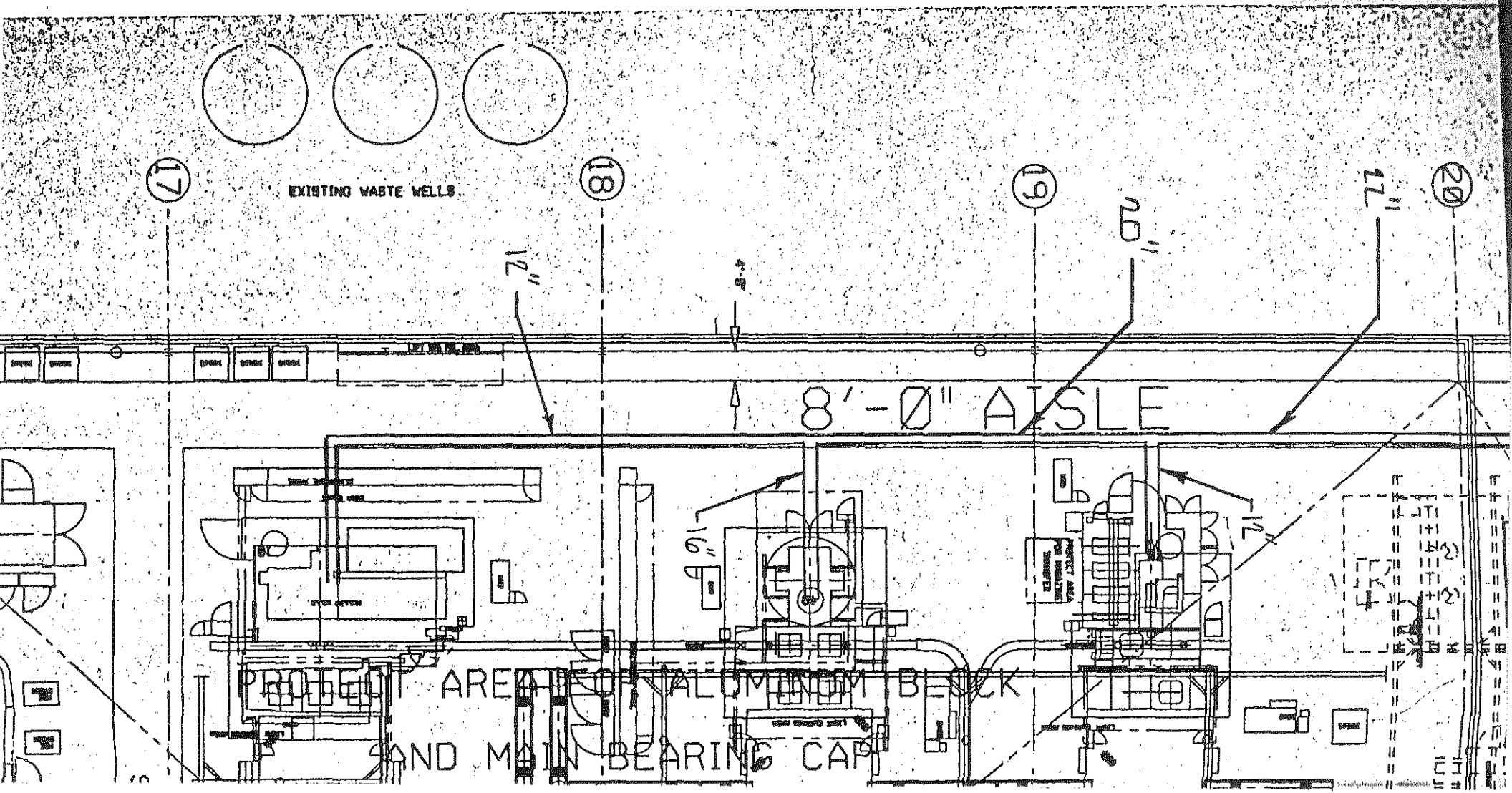
OPERATION	DESCRIPTION
128, 148, 158	CENTERLINE OF AUTOMATION TIE-IN-HOLE


BLOCK EXPANSION
ALUMINUM BLOCK
MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
MONROE MODEL OMC-250 MIST COLLECTOR
26"ϕ 25"ϕ 24"ϕ 22"ϕ 20"ϕ 18"ϕ 18"ϕ 16"ϕ 15"ϕ 12"ϕ
12" TYP
12'-0" AISLE
245'-2"

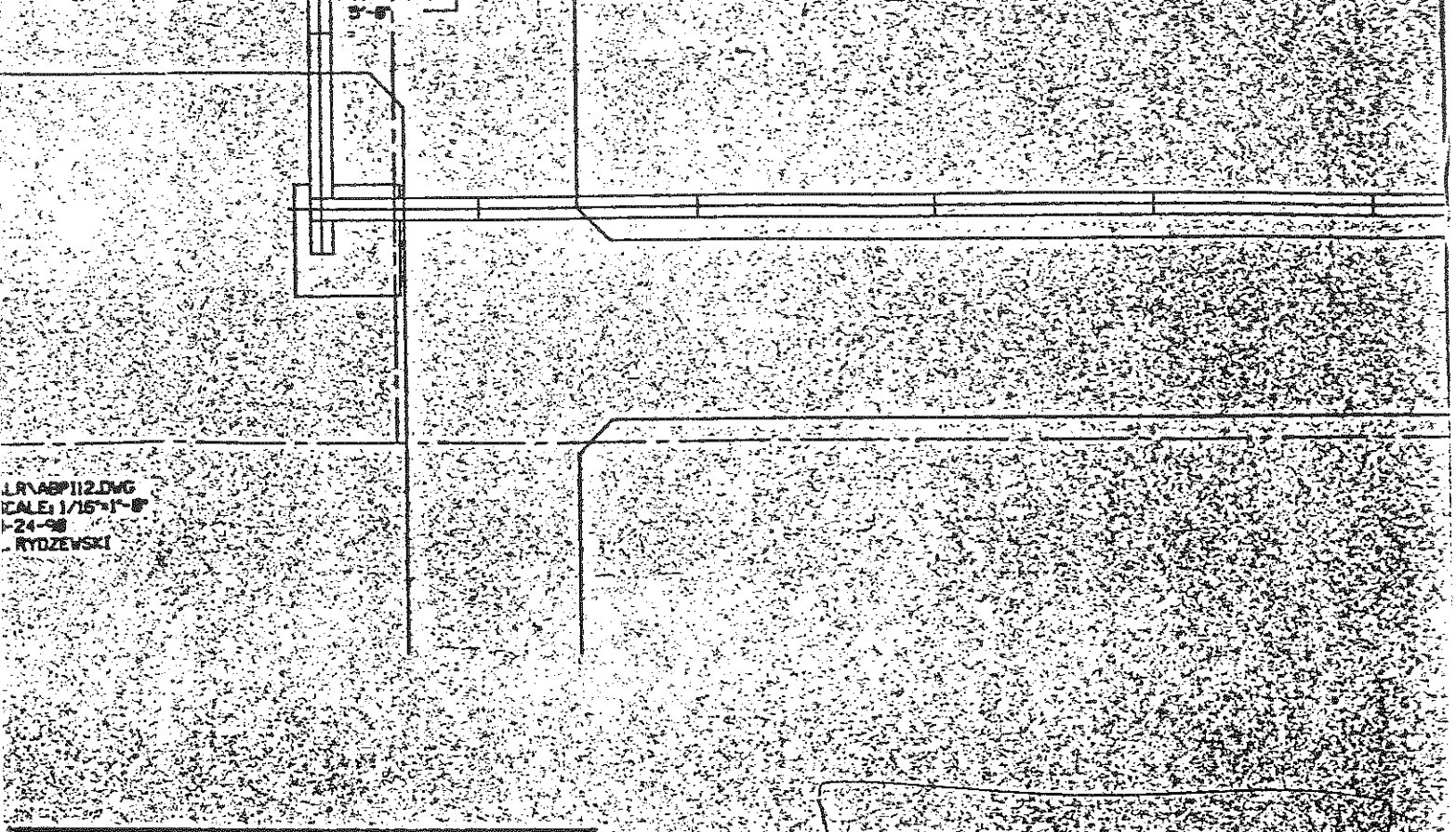

MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
PROTECT AREA FOR ALUMIN
8'-0" SERVICE ACCESS
MACHINE & D.C. PNL AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MAIN ELECT PNL &
MACHINE & D.C. PNL AREA
MACHINE
26" ø 8'-0" SERVICE ACCESS
90'-4"
141'-10"


MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
TYPICAL STACKER AREA
POWER AND FREE SCREEN GUARD ELEVATION 13'-10"
MACHINE & D.C. PNL AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MAIN ELECT PNL & FLUIDS SERVICES AREA
MACHINE & D.C. PNL AREA
U-1B MASTER COLUMN
TOOL CRIB AREA
POWER AND FREE SCREEN GUARD ELEVATION 13'-10"
7'-8"
12'-0" AISLE

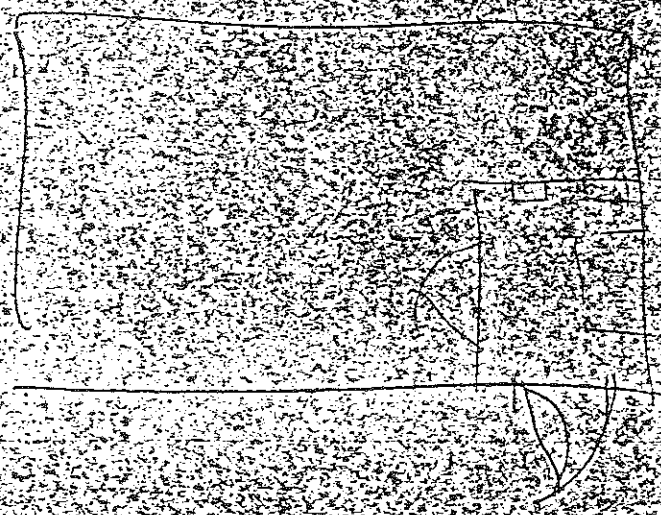

PROTOTYPE AREA FOR ALUMINUM BLOCK
AND MAIN BEARING CAP
SERVICE ACCESS
SERVICE ACCESS
SERVICE ACCESS
SERVICE ACCESS
MAINT. AREA
16"
16"
22"
FUTURE MBC MACHINE
FURNACE EXHAUST DUCT SUMMER
DIM GAGE AREA



EXISTING WASTE WELLS
17
18
19
20
12"
20"
12"
8'-0" AISLE
16"
12"
PROTECT AREA OF ALUMINUM BLOCK
AND MAIN BEARING CAP



FOR PROPOSED
MIST COLLECTION
ROLLING REVIEW



INFO FOR
A. MYEFSKI

FROM ALLEN RENOYEROS

7.11.90

NDER BLOCK AREA

\LR\ABP112.DWG
SCALE: 1/16"=1'-0"
5-24-98
L. RYDZEWSKI

OCK

FOR
MIST
ROLL

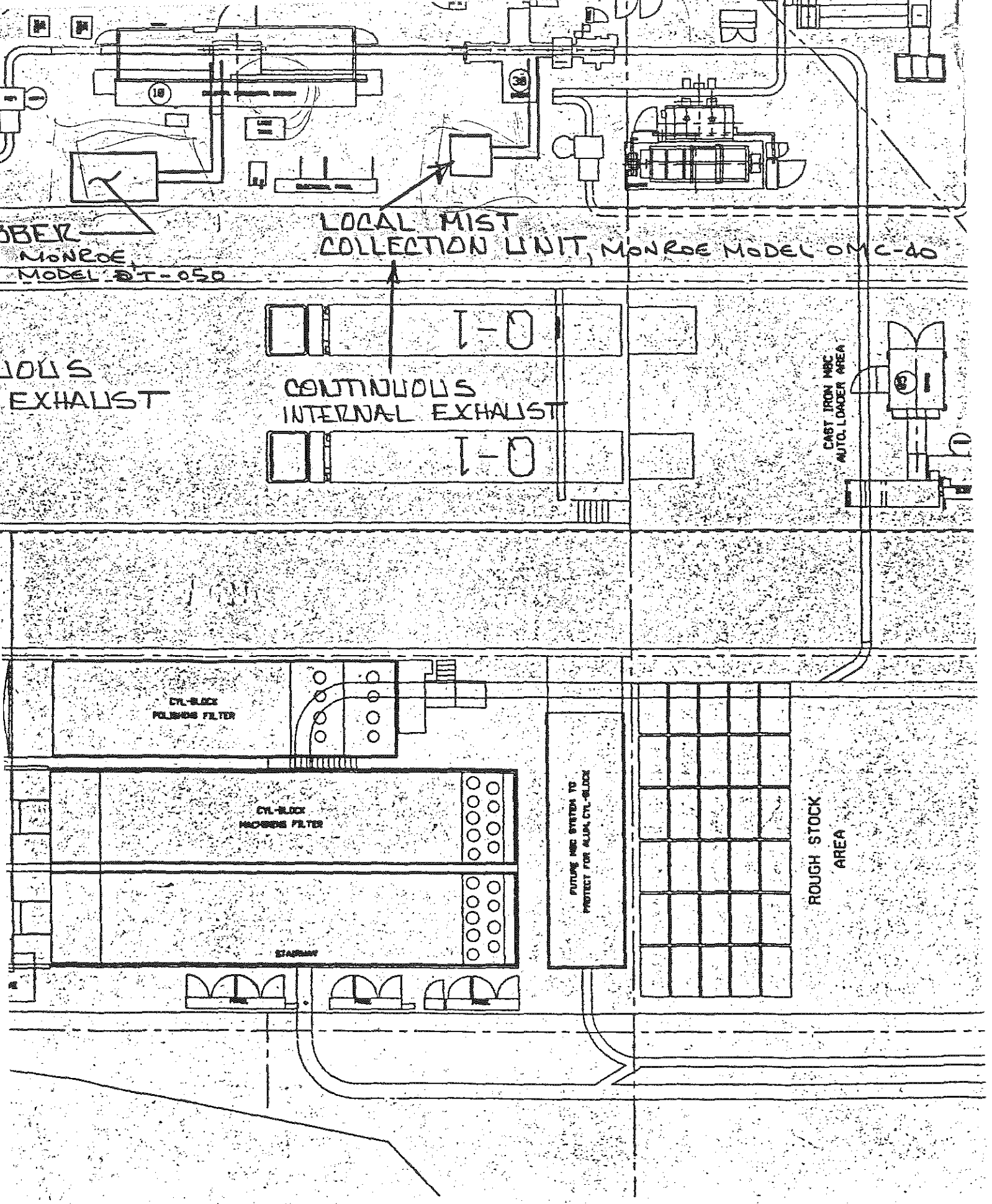
I
A

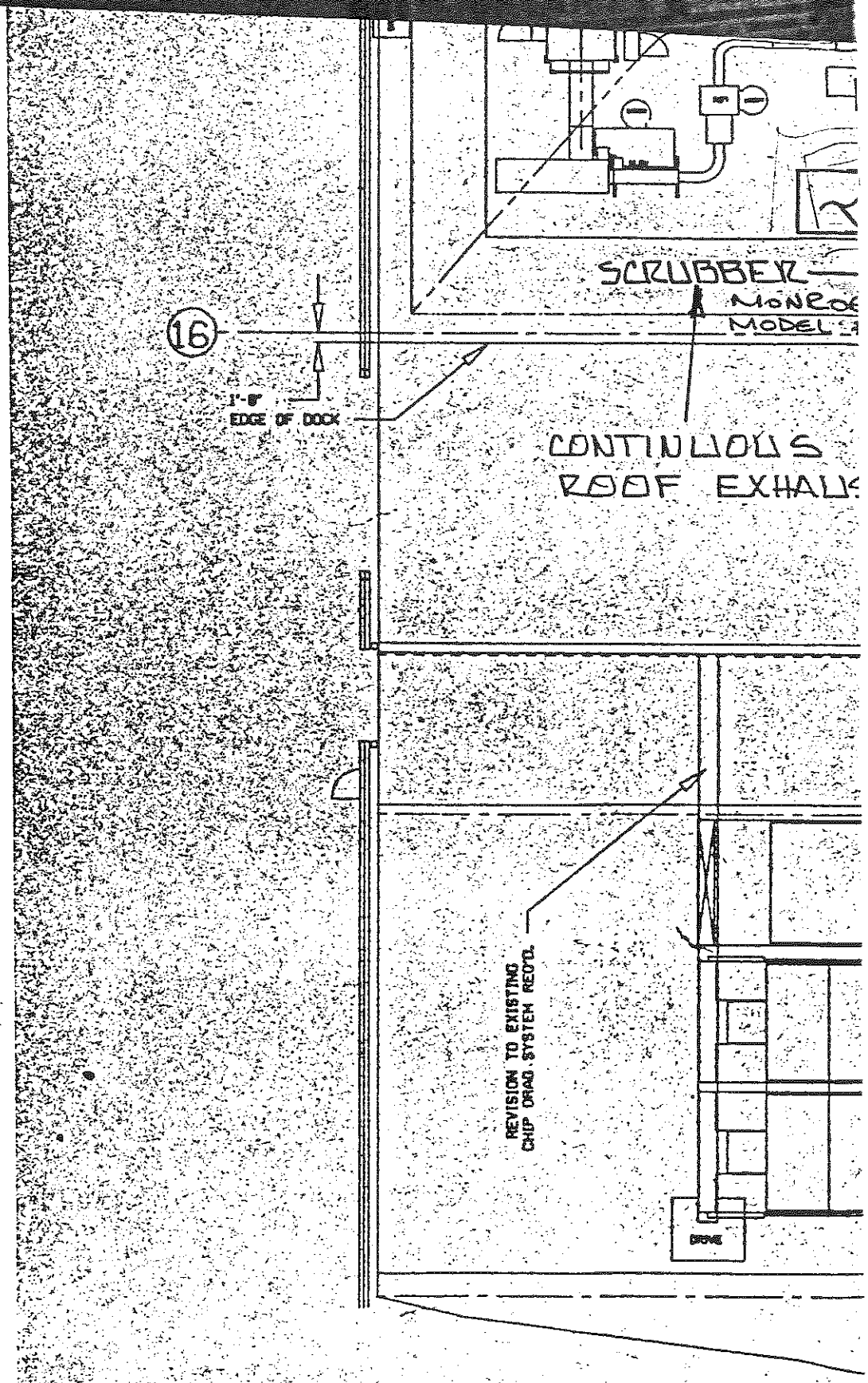
FR

4.6L ALUMINUM BLOCK

PRELIMINARY LAYOUT ONLY

12-0 AISLE
C-40
LOAD
U-18
MASTER
COLUMN


LOCAL MIST
COLLECTION UNIT, MONROE MODEL OMC-40
MONROE
MODEL DT-050
CONTINUOUS
INTERNAL EXHAUST
CAST IRON MGC
AUTO. LOADER AREA
CYL-BLOCK
POLISHING FILTER
CYL-BLOCK
MACHINING FILTER
FUTURE MGC SYSTEM TO
PROTECT FOR ALUM. CYL-BLOCK
ROUGH STOCK
AREA


SCRUBBER
MONROE
MODEL
16
1'-0"
EDGE OF DOCK
CONTINUOUS
ROOF EXHAUS
REVISION TO EXISTING
CHIP DRAG SYSTEM REQ'D.
DRAG

Ford Romeo Engine Plant
701 E. 32 Mile Road
Romeo, MI 48065

June 8th, 1990

TO: Robert P. Miller
Air Quality Division
Department of Natural Resources

FROM: Staci Swatsenbarg
Environmental Engineer
Ford Romeo Engine Plant

SUBJECT: 1989 Michigan Air Pollution Reporting (MAPR)

The AQ-20 and AQ-30 Equipment Identification Sheets mailed to our facility refer to equipment removed from service when the plant was renovated. This equipment was removed during 1988 and not operated during 1989. Romeo Engine Plant processes and equipment are completely new, including the air pollution control equipment. Please refer to permit to install No. 205-87. Romeo Engine Plant is currently completing construction and testing of the plant equipment. Full production is not expected to commence until the fall of 1990. For further information or questions you can contact myself at (313) 752-8087 or Ms. Rhonda Berger at (313) 322-3724.

Sincerely,

Staci Swatsenbarg

Staci Swatsenbarg

KG

Ford Motor Company

Romeo Engine Plant
701 East 32 Mile Road
Romeo, Michigan 48065

June 8, 1990

RECEIVED
JUN 28 1990
AIR QUALITY DIVISION

J. L. Trout
Southeast Permit Unit Air Quality Division
Department of Natural Resources
P.O. Box 30028
Lansing, Michigan 48909

Dear Mr. Trout:

In accordance with General Condition No. 1, Rule 208(2) in the Permit to install No. 205-87, a Permit to operate is requested for the Ford Motor Company, Romeo Engine Plant, located in Romeo, Michigan.

If additional information is required, feel free to contact either Ms. S. Swatsenbarg on (313) 752-8087, or Ms. R. Berger on (313) 322-3724.

Sincerely,

G. R. Pfeil
Plant Manager

SS/ct

#205-87

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
MARLENE J. FLUHARTY
STEPHEN V. MONSMA
STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE
HARRY H. WHITELEY

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

Gordon E. Guyer, Director

RECEIVED
APR 30 1987
AIR QUALITY DIVISION

April 28, 1987

Mr. M. J. Evans, Mfg. Manager
Ford Motor Company
The American Road
Dearborn, MI 48121

Dear Mr. Evans:

This letter is in reference to your Permit to Install application for an engine manufacturing facility, located at 701 East 32 Mile Road, Romeo, Michigan. This application, identified as No. 205-87, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplement. Please review these conditions thoroughly so that you may plan for and take the actions necessary to ensure compliance with all of these conditions. Also note that Condition No. 1 requires you to apply, in writing, for a permit to operate within 30 days after completion of construction.

You are advised that contaminants discharged to the surface waters and/or groundwaters; materials disposed of on land; hazardous waste storage, treatment, and disposal; and resource recovery facilities must be approved by other divisions of the Department of Natural Resources. For assistance to determine what approval may be required, you may contact the Department's Community Assistance Division at 517-373-8542. Additionally, your plant environment must be in compliance with all applicable requirements of the Departments of Public Health and Labor.

In addition, Permit to Install application No. 204-87 has been voided because you no longer plan to install an engine manufacturing facility at the Utica location.

Thank you for your cooperation. Please contact me if you have any questions regarding these permits.

Sincerely,

Jonathan L. Trout

Jonathan L. Trout, Chief
Southeast Permit Unit
Air Quality Division
(517) 373-7023

JLT:nm
Enclosure
cc: Tom Maki

#205-87

ENT OF NATURAL RESOURCES
ALITY DIVISION
OX 30028
SING, MICHIGAN 48909

STATE OF MICHIGAN

AIR USE PERMIT APPLICATION

APPLICATION NO. 205-87

FOR AUTHORITY TO INSTALL, CONSTRUCT, RECONSTRUCT, RELOCATE, OR ALTER, AND OPERATE PROCESS, FUEL-BURNING, OR REFUSE-BURNING EQUIPMENT AND/OR CONTROL EQUIPMENT (PERMITS TO INSTALL AND OPERATE ARE REQUIRED BY ADMINISTRATIVE RULES PURSUANT TO ACT 348, P.A. 1965, AS AMENDED).

AIR QUALITY DIVISION
MAR 16 1987
PERMIT SECTION

1. APPLICANT: Business License Name of Corporation, Partnership, Individual Owner, Government Agency
Ford Motor Company

2. MAILING ADDRESS: Number and Street; City or Village; State; Zip Code
The American Road; Dearborn, Michigan; 48121

3. EQUIPMENT OR PROCESS LOCATION: Number and Street; City, Village or Township
701 East 32 Mile Road; Romeo, Michigan

COUNTY: Macomb County

ZIP CODE: 48065

4. GENERAL NATURE OF BUSINESS:
Manufacture of Automobile Engines

5. EQUIPMENT OR PROCESS DESCRIPTION:
Engine Manufacturing Facility which includes machining operations for engine blocks, main bearing caps, engine heads, crankshafts, camshafts, and associated miscellaneous processes.

See attachments for descriptions.

6. ESTIMATED COST:
Air Pollution Control Equipment $ Total Project $

7. ACTION AND TIMING:

	ESTIMATED STARTING DATE	ESTIMATED COMPLETION DATE
[X] Installation, construction, reconstruction, or alteration	6/16/87	9/30/89
[ ] Relocation		
[ ] Change of Ownership		

8. NAME OF PRIOR OWNER AS IN ITEM 1 ABOVE, AND PRIOR AIR USE PERMIT NUMBER, IF ANY:
NAME PERMIT NO.

9. NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM
Name M.J. Evans Signature
Title: Manufacturing Manager Date: 3/12/87 Phone No. (313) 322-0921

10. CONTACT PERSON IF DIFFERENT THAN ITEM 9:
Name Joseph Dunkerley Phone No. (313) 337-1059

11. DISPOSITION OF APPLICATION: FOR DNR USE ONLY

Receipt of all information required by Rule 203

Permit to install approved * on APR 28 1987 Signature

Permit to operate approved * on Signature

Application/permit voided on Signature

Application/permit denied on Signature

*Subject to compliance with all Commission Rules and Conditions stipulated in the attached supplement.

AQ-1 INSTRUCTIONS FOR COMPLETING AND FILING ARE ON REVERSE SIDE PR 561 5/8

PERMIT EVALUATION SHEET

Application No. 205-87

E. No. B2869

Const. Commenced? Yes (Reg. Egr. notified) (No)

NSPS? Yes (Coord. notified) (No)

WQD notified? Yes (No)

RRD notified? Yes (No)

Other

NESHAPS? Yes (Coord. notified) (No)

Source Description (Installation date 6/16/87) (Covered by Permit No.

ENGINE MANUFACTURING FACILITY 4.6 l 8 CYLINDER

- CYLINDER BLOCK MACHINING
- MAIN BEARING CAP MACHINING
- CRANKSHAFT MACHINING
- CAMSHAFT MACHINING
- CYLINDER HEAD MACHINING
- HOT TEST STANDS
- ENGINE DYNAMOMETERS
- MAINTENANCE REPAIR WELD BOOTH
- CUTTER GRIND
- MAINTENANCE/TOOL ROOM
- PRODUCTION REPAIR BOOTH

Control Description

2 OIL MIST COLLECTORS FOR CAMSHAFT & CYLINDER HEAD MACHINING.

RECIRCULATED INTO PLANT DURING WINTER { 12 WET IMPINGEMENT SCRUBBERS FOR BLOCK, MAIN BEARING CAP, CRANKSHAFT, CYLINDER HEAD MACHINGING & CUTTER GRIND & MAINT/TOOL ROOM

Attainment Status	TSP	SO_2	CO	O_3
Attainment	A			
Non Attainment				A

P - Primary S - Secondary
A - All Standards U - Unclassified
* Close to Non attainment

	Plant Totals (TPY)			Equipment covered by this permit					
	Potential	Δ Pot. (5 years)	Allowed 12-21-76	Uncon. PPH	Expected PPH	Expected TPY	Allowable PPH	Allowable TPY	Limit
TSP				15.9	1.6	6.9	5.0	22.1	[illegible]
SO_2									
CO				NIL	FROM	ENGINE	TESTING		
NO_x									
VOC			14.8				—	<2.0	— Log

Basis for Recommendation; Comments

MINOR SOURCES

COLLECTORS PROVIDE EXCELLENT CONTROL

AIR RECIRCULATED INTO BLDG

VOC Logged - Same as Romeo Tactor both owned by Ford so logging ok

EOP? Yes (No) Emissions Logged? (Yes) (No) VOC PSD? Yes (No) under 25TPY PCDS? (Yes) No?

Reviewed by:

87 Blocks/Hr
546.5 caps/hr
109.3 crankshafts/hr
262 camshafts/hr

Production Rate ☐ Confidential Normal _____ Maximum _____

Normal Operating Schedule ☐ Confidential Hours/Day _____ Days/Wk _____ Wks/Year _____

Maximum Allowable Operating Schedule Hours/Day 24 Days/Wk 7 Wks/Yr 52

Fuel type NA Usage Heat Content % Sulfur % Ash

Collector Bypass Yes (No) Reasons - Conditions _____

Process/Control Waste and Disposal Disposed of properly

Stack, Building & Dispersion Paramaters

See Cos. info

Dispersion Yes (No) Comments:

Minor Source

Emission Calculations

Calculations done by Co. for expected & uncontrolled. Checked on 3/20/87.

Allowed emissions based on $\frac{0.005\#}{1000\#}$

Total less than 25 TPY ∴ NOT PSD SIGNIF

See attached sheet

SOURCE	CONTROL EQUIPMENT	TOTAL ACFM	UNCONT.	CONTROLLED*		A-1	OH
BLOCK MACHINING	4 WET IMPINGEMENT SCRUBBERS	115,000	7.6	0.8	3.3	2.6	11.3
MAIN BEARING CAP MACHINING	1 WET IMPINGEMENT SCRUBBER	30,000	2.0	0.2	0.9	0.7	2.9
CRANKSHAFT MACHINING	1 WET IMPINGEMENT SCRUBBER	30,000	2.0	0.2	0.9	0.7	2.9
CAMSHAFT MACHINING	1 OIL MIST COLLECTOR	5,000	0.4	4×10^{-2}	0.2	0.1	0.5
CYLINDER HEAD MACHINING	1 OIL MIST COLLECTOR	5,000	3.7	0.4	1.6	0.1	0.5
MAINT. REPAIR WELD BOOTH	NO CONTROL NECESSARY	10,000	1×10^{-3}	1×10^{-4}	4.4×10^{-4}	0.2	1.0
CUTTER GRIND	1 WET IMPINGEMENT SCRUBBER	10,000	0.05	5×10^{-3}	2.2×10^{-2}	0.2	1.0
MAINT/TOOL ROOM	1 WET IMPINGEMENT SCRUBBER	10,000	0.02	2×10^{-3}	8.7×10^{-3}	0.2	1.0
PROD. REPAIR BOOTH WELD	NO CONTROL NECESSARY	10,000	3×10^{-3}	3×10^{-4}	1.3×10^{-3}	0.2	1.0
		225,000	15.8	1.6	6.9	5.0	22.1

ALL TPY FACTORS BASED ON 24 x 7 x 52 HOURS/YEAR

* BASED ON 90% CONTROL η (J. LENNON 3/21/87)

** BASED ON ALLOWED RATE OF 0.0050#/1000#

$$\frac{ft^3}{min} \times \frac{60\,min}{hr} \times \frac{0.075\#}{ft^3} \times \frac{0.0050\#}{1000\#}$$

Ford Motor Company

Romeo Engine Plant
701 E. 32 Mile Road
Romeo, Michigan 48065

September 15, 1989

Mr. J. L. Trout
Southeast Permit Unit
Air Quality Division
Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909

Dear Mr. Trout:

An Air Use Permit Application was sent to you on March 12, 1987, requesting authority to install process and control equipment for the Romeo Engine Plant, located at 701 E. 32 Mile Road, Romeo, Michigan. The application, identified as No. 205-87, was evaluated and approved by the Air Quality Division (ref: letter from J. L. Trout dated April 28, 1987). This letter is to inform you of engineering design changes to the originally proposed manufacturing processes and air emissions collection devices. A revised Air Use Permit Application is enclosed.

The original application was based upon machining operations that were predominantly dry operations. Subsequent engineering design changes have rendered all operations as wet machining using soluble oil, with the exception of the Main Bearing Cap broaching operation. Therefore, our emissions collection devices have been changed to allow for wet particulate capture.

The collection system operation will begin at the end of September, 1989. Full production will begin in April, 1990. Prior to full production, product validation and prove out runs will occur.

Enclosed in this package you will find:

1) a data sheet including pertinent information on the oil mist and dust collection systems,

2) drawings on the ducting and location of the mist collection system for all of the affected machining departments, and

3) product literature, including photographs, descriptions and specifications for the collection equipment.

If you have any questions or need additional information, feel free to contact Ms. R. Berger on (313) 322-3724 or Ms. S. Swatsenbarg on (313) 752-8087.

Very truly yours,

G. R. Pfeil
Plant Manager

GRP/ct

Enclosure

STATE OF MICHIGAN

DEPARTMENT OF NATURAL RESOURCES
QUALITY DIVISION
BOX 30028
LANSING, MICHIGAN 48909

AIR USE PERMIT APPLICATION

APPLICATION NO.

FOR AUTHORITY TO INSTALL, CONSTRUCT, RECONSTRUCT, RELOCATE, OR ALTER, AND OPERATE PROCESS, FUEL-BURNING, OR REFUSE-BURNING EQUIPMENT AND/OR CONTROL EQUIPMENT (PERMITS TO INSTALL AND OPERATE ARE REQUIRED BY ADMINISTRATIVE RULES PURSUANT TO ACT 348, P.A. 1965, AS AMENDED).

1. APPLICANT: Business License Name of Corporation, Partnership, Individual Owner, Government Agency
Ford Motor Company

2. MAILING ADDRESS: Number and Street; City or Village; State; Zip Code
The American Road, Dearborn, MI 48121

3. EQUIPMENT OR PROCESS LOCATION: Number and Street; City, Village or Township
Romeo Engine Plant, 701 E. 32 Mile Road, Romeo, MI

COUNTY: Macomb

ZIP CODE: 48065

4. GENERAL NATURE OF BUSINESS:
Manufacture of automobile engines.

5. EQUIPMENT OR PROCESS DESCRIPTION:
Engine manufacturing facility which includes machining operations for engine blocks, main bearing caps, engine heads, crankshafts, camshafts and subsequent engine assembly. Other associated operations include engine hot test and dynomometer testing.

6. ESTIMATED COST:
Air Pollution Control Equipment $ 2.5 Million Total Project $

7. ACTION AND TIMING:

	ESTIMATED STARTING DATE	ESTIMATED COMPLETION DATE
[X] Installation, construction, reconstruction, or alteration	6/16/87	9/30/89
[ ] Relocation		
[ ] Change of Ownership		

8. NAME OF PRIOR OWNER AS IN ITEM 1 ABOVE, AND PRIOR AIR USE PERMIT NUMBER, IF ANY:
NAME Ford Motor Company PERMIT NO. 205-87

9. NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM
Name G. R. Pfeil Signature G. R. Pfeil
Title: Plant Manager Date: Phone No. ( )

10. CONTACT PERSON IF DIFFERENT THAN ITEM 9:
Name R. Berger, Engine Division (313) 322-3724
S. Swatsenbarg, Romeo Engine Plant Phone No. ((313) 752-8087

11. DISPOSITION OF APPLICATION: FOR DNR USE ONLY

eceipt of all information equired by Rule 203 _____

Permit to install approved * on _____ Signature _____

Permit to operate approved * on _____ Signature _____

Application/permit voided on _____ Signature _____

Application/permit denied on _____ Signature _____

ROMEO ENGINE PLANT
OIL MIST/DUST COLLECTION
AIR USE PERMIT REVISION DATA SHEET

UNIT NO.	LOCATION	DEPARTMENT	CAPACITY CFM	EMMISSION TYPE	* UNCONTROLLED RATE ESTIMATED (LB/HOUR)	** CONTROLLED RATE ESTIMATED (LB/HOUR)	COLLECTION EFFICIENCY	STACK DISCHARGE HEIGHT A.F.F. (FEET)	STACK DIAMETER AT DISCHARGE (INCHES)	OPERATING SCHEDULE (HRS/WK)	SYSTEM STARTUP DATE
MOM-1	G-19	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-2	K-20	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-3	M-20	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-4	M-18	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-5	E-15	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-6	G-15	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-7	K-16	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-8	V-15	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-9	E-13	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-10	G-13	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-11	M-10	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-12	E-11	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-13	H-10	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-14	K-10	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-15	P-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-16	R-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-17	T-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-18	C-9	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-19	H-7	CONN ROD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	TBD
MOM-20	H-4	CONN ROD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	TBD
MOM-21	E-2	CAMSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MDC-1	V-14	BLOCK	10,000	C.I. DUST	24	0.24	99.0%	40	28	102	Sept-89

* Estimated based on similar installations
** Estimated based on vendor information and testing on similar installations

September 7, 1989

xc: ~~Del~~ ~~Al~~ John/Dist. Ken Chuck Joan
✓ Cover letter only T.F. AL 4/20
Original: [redacted]
FORD ROMEO.

KEN,
PLS HAVE STAFF CONSULT W/ DIST AND DRAFT RESPONSE FOR MY SIGNATURE BY 4/20
AL 4/6

Environmental and Safety Engineering Staff
Ford Motor Company

Suite 608
15201 Century Drive
Dearborn, Michigan 48120

April 2, 1987

Mr. Alan J. Howard, Chief
Technical Services Section
Hazardous Waste Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, MI 48909

Subject: Ford Motor Company - Romeo Tractor & Equipment Plant
Retroactive Withdrawal of RCRA Permit Application
U.S. EPA ID #MID 078400165

Dear Mr. Howard:

On January 31, 1984, the above referenced Ford Motor Company facility submitted a revised RCRA Part A application to EPA Region V and the MDNR. This revision incorporated two surface impoundments which contained wastewater treatment sludge from various plant operations including phosphating which EPA then believed to be included within the scope of EPA Hazardous Waste No. F006. In addition, the January 31, 1984 communication included a closure plan and Certification of Closure for the Romeo Plant's former hazardous waste drum storage area. On April 17, 1984 (letter attached), EPA approved the closure plan for the container storage area and the closure certification information which had been submitted. The Romeo Plant now generates and stores containerized hazardous wastes at another plant location on-site for less than 90 days pursuant to 40 CFR 262.34(a) and Michigan Rule 299.9306(1).

The January 31, 1984 revised Part A application listed hazardous waste F006 from wastewater containing phosphate coating rinsewaters as the only hazardous waste treated/storage at the Romeo Plant. Since that time, EPA has re-evaluated its previous interpretation of F006 and has determined that it was overly broad. As a result of this decision, EPA published an interpretive rule in the December 2, 1986 Federal Register (51 FR 43350-51, attached) specifically excluding chemical conversion coating, such as phosphating, from the F006 listing. This rule further stated that delisting petitions submitted for several facilities, including the Ford Romeo Tractor & Equipment Plant, were moot and unnecessary, since the wastes described in the petitions were not listed F006 hazardous wastes.

Based on these developments, we conclude that EPA and MDNR now recognize that this facility should never have been categorized as a hazardous waste treatment/storage/disposal facility for the surface impoundments that have since been closed, with all wastes removed. We request that the revised RCRA Part A permit application covering the two wastewater treatment surface

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impoundments be formally withdrawn because no hazardous waste treatment/ storage/disposal activities involving surface impoundments or other land disposal units were ever conducted at this facility. Therefore, this facility was never a RCRA land disposal facility (as defined in Section 210 of HSWA) and, subsequent to the 1984 EPA-approved closure of the former drum storage area, should only be categorized as a "generator" of hazardous waste.

Additional information (attached) in support of this request for retroactive permit application withdrawal for the closed surface impoundments documents that the wastewater treatment sludge generated at Romeo is not hazardous waste. Included are:

- A copy of an August 16, 1984 affidavit signed by the acting Plant Manager of the Romeo Plant at the time attesting that the November 18, 1980 Part A application included the waste codes F011 and K021 out of an abundance of caution and good-faith misunderstanding of the regulations because of the presence of those constituents in a sample of sludge. The plant has never performed the operations associated with those waste codes. This affidavit was in response to a July 30, 1984 EPA V Complaint alleging violation of certain RCRA regulations with respect to waste codes F011, K021, and F006.

- My June 9, 1986 letter to Mr. Larry AuBuchon of MDNR staff attaching for MDNR review process descriptions, sampling techniques and analytical data contained in the delisting petition for purposes of confirming that the wastewater treatment sludge generated is not a characteristic hazardous waste. The June 9, 1986 letter also notes that the subject surface impoundments were closed in accordance with an EPA-approved closure plan with appropriate closure certification submitted to EPA V.

- A letter dated October 6, 1986 from U.S. EPA stating that its records indicated that our petitioned waste is generated from processes not included in the scope of the F006 listing, and that agency review of our delisting petition would be discontinued.

As discussed in our telephone conversation of December 11, 1986, we are looking forward to receiving MDNR confirmation that the Ford Romeo Tractor & Equipment Plant was/is not a RCRA land disposal facility.

If you have any additional questions concerning this request please call either Kathy Waskiewicz (313/594-7752) or me at any time.

Very truly yours,

Jerome S. Amber

Jerome S. Amber
Principal Staff Engineer
Stationary Source Environmental
Control Office
313/322-4646

kw

cc: K. Bremer, EPA V
B. Okwumabua, MDNR

RECEIVED
OCT 2 1985
AIR QUALITY DIVISION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

September 30, 1985

Mr. Thomas Maki,
Michigan Department of Natural Resources
Air Quality Division
15500 Sheldon Road
Northville, MI 48167

Subject: Ford Motor Company, Romeo Tractor & Equipment Plant
Michigan State Implementation Plan (SIP)
Revision Consent Order 3-1985

Dear Mr. Maki:

Consent Order No. 3-1985 requires submittal to the Department of Natural Resources (Staff) by September 30, 1985, the status of the production testing of substitute coatings for standard colors and progress of the necessary application equipment that is required to control the Volatile Organic Compound (VOC) emissions from the following paint booths:

B. Straddle Mount Chassis Paint Booth
C. Small Parts Paint Booth
D. Industrial Tractor Paint Repair Booth
E. Agricultural Tractor Paint Repair Booth
F. Touch-Up Repair Booth

Standard colors as defined in the Consent Order are those coatings having Ford Color Numbers: 1639, 5771, 1750, 1724 and 6J96.

Straddle Mount Chassis Paint Booth (Item B) and Small Parts Paint Booth (Item C).

1. These booths will be using high solids 3.5 pounds of VOC per gallon of standard coatings minus water, as applied, based on a 24-hour averaging period. Four of the five standard colors (Numbers: 1639, 5771, 1750 and 6J96) have been tested at 3.5 pounds of VOC per gallon (Attachment I). The fifth standard color (1724) is scheduled for testing, week of October 7, 1985. Formulation has been completed for all standard colors and paint orders have been placed with Ford Mt. Clemens Paint Plant for pre-production testing in the month of October, 1985 (Attachment II).

2. The high solid coatings application equipment (hot airless) is identical for each paint booth. Equipment purchases and vendor installation is on schedule.

cc: Lansing

Industrial Tractor Paint Repair Booth (D), Agricultural Tractor Paint Repair Booth (E) and Touch-Up Repair Booth (F).

1. These paint repair booths will be using high solids 4.8 pounds of VOC per gallon of standard coating minus water, as applied, based on a 24-hour averaging perid. Ford Mt. Clemens Paint is using the technology developed in the formulation of the low VOC emission standard coating for the Straddle Mount and Small Parts Paint Booths above, and is currently laboratory testing 4.8 pounds of VOC per gallon coatings. Preliminary production testing will start next month.

2. Paint application equipment, atomized air spray, is on order for October-November installation (Attachment III).

The progress in developing the standard compliance coatings and new equipment purchased and installation will be continually reported to your office as required by the Consent Order.

If you have any questions, please contact Mrs. Linda S. Gamble of our Stationary Source Environmental Control Office at (313) 594-3063.

Yours very truly,

for J. van de Kerckhof,
Plant Manager

Attachments

cc: R. Irvine,
Michigan Dept. of Natural Ressources
PO Box 30028
Lansing, MI 48909

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RECEIVED

APR 29 1985

AIR QUALITY DIVISION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

April 25, 1985

Mr. Thomas Maki,
Michigan Department of Natural Resources
Air Quality Division
15500 Sheldon Road
Northville, MI 48167

Subject: Ford Romeo Tractor and Equipment Plant
Michigan State Implementation Plan (SIP) Revision
Consent Order 3-1985

Dear Mr. Maki:

Consent Order No. 3-1985 requires submittal to Department of Natural Resources (Staff) within thirty days of the effective date of this Order (March 28, 1985), the method used for control of Volatile Organic Compound (VOC) emissions from the Flat Deck Chassis Paint Booth.

Since December 31, 1984, certified compliance standard coatings at 3.5 pounds VOC per gallon of coating, minus water, have been applied to tractor components in the above paint booth. These certified standard coatings are being supplied by Ford Motor Company, Mt. Clemens Paint, Plastic and Vinyl Plant, and the technical support data for these coatings are provided in Attachment I. VOC data for this process will be submitted quarterly for your review as required by Section 5 of the Consent Order. Standard colors, as defined in the Consent Order, are those coatings having Ford Color Numbers 1639, 5771, 1750, 1724 and 6J96.

As required by Consent Order 3-1985 Section 4.A(2), please find a copy of the application to install and operate the Flat Deck Chassis Paint System using high solids 3.5 VOC standard coatings.
Mrs. L. S. Gamble of our Stationary Source Environmental Control Office spoke with Mr. Marwan Khuri of your staff on April 23, 1985 regarding future reporting of the coating conversion for specialty colors at this booth which will occur by December 31, 1986. It is our understanding that a letter indicating the conversion to 3.5 VOC for specialty colors would suffice and that an additional application would not be required. We request that this understanding be confirmed by letter form your office.

M. Lansing

Sections 4.A(3), (4), and (5) of the Consent Order were completed on a timely basis prior to December 31, 1984.

If you have any questions, please contact Mrs. Linda S. Gamble at (313) 594-3063.

Yours very truly,

J. van de Kerckhof,
Plant Manager

cc: G. Avery, DNR Permit Section (original application)
P.O. Box 30028
Lansing, MI 48909

Attachments

3163g

Attachment I

Mt. Clemens Pa , Plastic and Vinyl Paint Cer ication Report

Technical Data

Company	Romeo Tractor & Equipment Plant
Customer Code	6J9640021
Color	TAUPE
Vendor Code	6J9640L
Batch Number	228
Batch Size (Gallon)	200

Viscosity #4 Ford Cup	89 Sec	(As shipped)
Wt./Gallon - Paint	11.50 Lbs.	(As shipped)
Wt. Solids - Paint	69.48 %	(As shipped)
VOC Paint	3.51 Lbs./Gal.	(As shipped)
Volume Solids (Theo)	%	
Wt./Gallon-Volatile (Theo)	Lbs.	
Reducing Solvent	N/A	
% Reduction to Spray	N/A. %	

Information Source: Mt. Clemens PPV, Quality Control Department

Date: 3-27-85 J F Dehtala

Mt. Clemens Pa[illegible], Plastic and Vinyl Paint Cer[illegible]ication Report

Technical Data

Company	Romeo Tractor & Equipment Plant
Customer Code	1J100B00BL
Color	1639
Vendor Code	1J100B1639L
Batch Number	11
Batch Size (Gallon)	1000

Viscosity #4 Ford Cup	100 Sec	(As shipped)
Wt./Gallon - Paint	8.53 Lbs.	(As shipped)
Wt. Solids - Paint	63.90 %	(As shipped)
VOC Paint	3.08 Lbs./Gal.	(As shipped)
Volume Solids (Theo)	%	
Wt./Gallon-Volatile (Theo)	Lbs.	
Reducing Solvent	N/A	
% Reduction to Spray	N/A %	

Information Source: Mt. Clemens PPV, Quality Control Department

Date: 4-11-85 [signature]

Mt. Clemens Pai , Plastic and Vinyl Paint Cert cation Report

Technical Data

Company	Romeo Tractor & Equipment Plant
Customer Code	15100B00BL
Color	1639
Vendor Code	15100B
Batch Number	10
Batch Size (Gallon)	250

Viscosity #4 Ford Cup	90	Sec	(As shipped)
Wt./Gallon - Paint	8.40	Lbs.	(As shipped)
Wt. Solids - Paint	60.66	%	(As shipped)
VOC Paint	3.30	Lbs./Gal.	(As shipped)
Volume Solids (Theo)		%	
Wt./Gallon-Volatile (Theo)		Lbs.	
Reducing Solvent	N/A		
% Reduction to Spray	N/A	%	

Information Source: Mt. Clemens PPV, Quality Control Department

Date: 3-26-85 DJ Delitala

Mt. Clemens Pa' , Plastic and Vinyl Paint Cer' ication Report

Technical Data

Company	Romeo Tractor & Equipment Plant
Customer Code	1J100800BL
Color	1639
Vendor Code	1J100B1639L
Batch Number	165
Batch Size (Gallon)	900

Viscosity #4 Ford Cup	99 Sec	(As shipped)
Wt./Gallon - Paint	8.45 Lbs.	(As shipped)
Wt. Solids - Paint	59.84 %	(As shipped)
VOC Paint	3.39 Lbs./Gal.	(As shipped)
Volume Solids (Theo)	%	
Wt./Gallon-Volatile (Theo)	Lbs.	
Reducing Solvent	N/A	
% Reduction to Spray	N/A %	

Information Source: Mt. Clemens PPV, Quality Control Department

Date: 1-11-85 D7 Dehtala

Mt. Clemens Pa' , Plastic and Vinyl Paint Cer' 'ication Report

Technical Data

Company	Romeo Tractor & Equipment Plant
Customer Code	1J100B00BL
Color	1639
Vendor Code	2P100B00BL
Batch Number	2
Batch Size (Gallon)	200

Viscosity #4 Ford Cup	66 Sec	(As shipped)
Wt./Gallon - Paint	8.47 Lbs.	(As shipped)
Wt. Solids - Paint	58.86 %	(As shipped)
VOC Paint	3.48 Lbs./Gal.	(As shipped)
Volume Solids (Theo)	%	
Wt./Gallon-Volatile (Theo)	Lbs.	
Reducing Solvent	N/A	
% Reduction to Spray	N/A %	

Information Source: Mt. Clemens PPV, Quality Control Department

Date: 10-18-84

D F Delitala

Mt. Clemens Pa' , Plastic and Vinyl Paint Cerr ' ication Report

Technical Data

Company	Romeo Tractor & Equipment Plant
Customer Code	6J96A002C
Color	TAUPE
Vendor Code	6J96A0L
Batch Number	225
Batch Size (Gallon)	250

Viscosity #4 Ford Cup	98	Sec	(As shipped)
Wt./Gallon - Paint	11.51	Lbs.	(As shipped)
Wt. Solids - Paint	69.43	%	(As shipped)
VOC Paint	3.52	Lbs./Gal.	(As shipped)
Volume Solids (Theo)		%	
Wt./Gallon-Volatile (Theo)		Lbs.	
Reducing Solvent	N/A		
% Reduction to Spray	N/A	%	

Information Source: Mt. Clemens PPV, Quality Control Department

Date: 12-17-84 D7 Dahtela

APR 19 1985

RECEIVED
APR 26 1985
AIR QUALITY DIVISION

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Jack Van de Kerckhof, General Manager
Ford Motor Company
Romeo Tractor and Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. Van de Kerckhof:

Under the provisions of the Clean Air Act, (the "Act") as amended, 42 U.S.C. Section 7401 et. seq., the Administrator of the United States Environmental Protection Agency (U.S. EPA) approved portions of an implementation plan submitted by the State of Michigan to attain and maintain the National Ambient Air Quality Standards within the Metropolitan Detroit-Port Huron Intrastate Air Quality Control Region. The provisions so approved include Michigan Air Pollution Control Commission Rule R 336.1621 concerning the control of volatile organic compound emissions from existing coating lines.

The information requested herein is necessary to determine the extent to which the Ford Motor Company, Romeo Tractor and Equipment Plant is in compliance with applicable provisions of the Michigan State Implementation Plan. Accordingly, you are hereby required, under the authority of Section 114 of the Act, 42 U.S.C. Section 7414, (a copy of which is enclosed) to report the information requested on the enclosed forms for the 12 month period immediately preceding the date of this letter.

Please fill out individual forms for each of the production coating operations listed below:

1. Hydraulic Cylinder Booth
2. Modification Building Repair
3. Industrial Tractor Repair
4. Agricultural Tractor Repair
5. Small Parts Paint System
6. Straddle Mount Tractor Chassis
7. Flat Deck Tractor Chassis
8. Touch-up Booth

The information required by this letter shall be submitted to Mr. Larry Kertcher, Chief, Air Compliance Branch, Air Management Division, Region V, no later than 10 days after your receipt hereof. A copy of your reply should also be sent to Robert P. Miller, Chief, Air Quality Division, Michigan Department of Natural Resources, P.O. Box 30028, Lansing, Michigan 48909. Additionally, any change in the information provided pursuant to this request must be reported no later than 5 days after such change occurs. This continuous requirement to provide notification of changes in the information covered by this request shall remain in effect for a period of 6 months from the date of this letter.

Please note that, under the regulations appearing at 40 C.F.R. Section 2.100 et. seq., Ford Motor Company is entitled to assert a business confidentiality claim covering any portion of the submitted information which is not emission data or necessary to determine emission data. Failure to assert a claim makes the submitted information available to the public without further notice. Information subject to a business confidentiality claim may be available to the public only to the extent set forth in the above-cited regulations.

Any questions concerning this request may be directed to Daniel Bakk or Kathy Kline, of my staff, who may be contacted by telephone, at (312) 353-2088.

Your cooperation in providing this information is appreciated.

Sincerely yours,

David Kee, Director
Air Management Division (5AC-26)

Enclosures a/s

cc: Robert Miller, Chief
Air Quality Division
Michigan Department of
Natural Resources

Donald Hinkfoot, Plant Engineer
Ford Motor Company
Romeo Tractor and Equipment Plant
Romeo, Michigan

H. Poling, President
Ford Motor Company
Dearborn, Michigan

File

MIC

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
STAFF ACTIVITY REPORT

RECEIVED
DEC 5 1984
AIR QUALITY DIVISION

January 15, 1985

Respondent

Ford Motor Company
Romeo Tractor & Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Purpose

The Commission is asked to consider entry of the proposed consent order which provides for the painting operations at this facility subject to the Commission's Rule 621 - Emission of Volatile Organic Compounds from the Coating of Metallic Surfaces at Existing Coating Lines. The proposed order provides the following:

(a) A one (1) year extension for meeting the emission limit on a 24-hour average basis at the flat deck chassis booth.

(b) A two (2) year extension for meeting a site specific Reasonably Available Control Technology (RACT) emission limit on a 24-hour average basis at the industrial tractor repair booth, the agricultural tractor repair booth, and the paint touch-up booth.

(c) A three (3) year extension for meeting the emission limit on a 24-hour average basis at the straddle mount chassis and small parts booths.

The proposed order also provides for the possibility of equivalent emission limits and sets forth reporting and recordkeeping requirements for the company. If approved this order will be submitted to the U.S. EPA as a SIP Revision.

Description of Source

The Ford Motor Company - Romeo Tractor and Equipment Plant, assembles and finishes a wide variety of heavy equipment for agricultural, construction and industrial applications. Primers and topcoatings are applied on a

"wet-on-wet" basis. The company uses approximately 160 topcoat colors, most of these consisting of specialty colors with annual usage volumes below 15 gallons. Current plant production is approximately 70 agricultural and 20 industrial tractors per day on 2 shifts per day, 5 days per week, 50 weeks per year. The plant is located in an area which is considered to be attainment for all pollutants with the exception of ozone.

Discussion

The company has reviewed a wide range of compliance options including carbon adsorption, incineration, solvent substitution, powder coatings, urethane coatings, water based coatings, and high solids coatings. The control options, carbon adsorption and incineration, were found to be uneconomical. First year costs for a carbon adsorption system were determined to be over 29 million dollars. First year costs for an incineration system were determined to be 7.1 million dollars with an additional operating cost of 1.1 million dollars per year. Of the remaining paint reformulation options, high solids coatings has proved to be the most economical (first year costs of 1.9 million dollars), as well as the most technically feasible.

Although the use of high solids coatings have been shown to be technically feasible for the company's purposes, several developmental problems have resulted in the need for a delayed compliance schedule. These problems stem from two areas: the wet-on-wet paint application method utilized at the plant, and the wide variety of specialty colors used. In wet-on-wet paint application the top coat is applied in the same booth over a wet primer coat. This is unlike coating methods used at other tractor manufacturing facilities or at automobile assembly plants.

The company has requested the consideration of a site specific RACT emission limit of 4.8 pounds of VOC per gallon of coating, minus water, as applied, for its three paint repair operations. An emission limit of 4.8 pounds of VOC per gallon of coating, minus water, as applied is currently included in Rule 621 for "truck final repair coatings". It has been staff's finding that this request is reasonable because of the fast drying quality needed for paints used in the repair operations, as well as, the need for acceptable color match with the existing coatings. The coatings must be fast drying air cured type coatings since heat sensitive parts on the assembled products cannot be baked.

Provisions for 24-hour averaging are included for all the subject operations. Instantaneous compliance by each coating used is currently required by Rule 621. The 24-hour averaging period allows the use of some coatings above the limit which when averaged over 24 hours with coatings that are below the limit, equivalent compliance is achieved. The 24-hour averaging period is necessary due to the use of 160 specialty colors with higher solvent contents than the standard colors.

A 1 year compliance extension has been requested for the flat deck chassis paint booth. This is the newest coating operation at the plant which will simplify the necessary modifications. Also only a limited number of specialty colors are used for this application. Language in the proposed order also allows for the company to comply with an equivalent emission limit, accounting for documented improvements in paint transfer efficiency, if paint reformulation alone does not result in compliance. Transfer efficiency improvements will be documented by testing of the actual mass transfer efficiency of the existing and modified application equipment utilizing representative parts and painting techniques. This booth will be used to fine tune coatings and application equipment for use in the remaining booths.

A 2 year compliance extension has been requested for the industrial and agricultural tractor repair booths and the touch-up booth. Additional time is necessary for these operations due to the wider variety of specialty colors used and the age of these booths which results in the need for more extensive modifications. Identical language for an equivalent emission limit is provided.

A 3 year compliance extension has been requested for the straddle mount chassis booth and the small parts booth. These operations use the widest variety and largest volume of specialty colors. An interim date of December 31, 1985, (two years) is provided for the modifications to the paint booths and the use of high solids standard colors. The extra year is necessary to allow the development of enough high solids specialty colors so that the emission limit will be met on a 24-hour average basis.

An additional two (2) paint booths at the plant are considered to be exempt from the provisions of Rule 621 under section 8(a). This section allows the exemption of sources with annual VOC emissions less than 10 tons per year as long as the total exempted emissions at the plant do not exceed 30 tons per year. These two sources, the hydraulic cylinder paint booth and the modification building repair booth, had a combined total VOC emission of 6.4 tons in 1983.

If plant production is assumed constant at 17,000 units per year through 1985, the proposed consent order will provide for the following VOC emissions reductions from the current estimated level of 270 tons per year. Compliance by the flat deck chassis booth will result in a 16 ton per year VOC emission reduction by December 31, 1984. Compliance by the remaining subject painting operations will result in a 68 ton per year VOC emission reduction by December 31, 1985. Compliance with Rule 621 will result in an estimated annual VOC emission rate of 186 tons per year at the specified production rate.

Summary and Recommendation

The proposed consent order will provide the company with extensions of the final compliance date for Rule 621. The proposed order will also provide for a 24-hour averaging period and a site specific RACT emission limit for the paint repair and touch-up operations. These are provided as a result of the company's unique paint application method, the wide variety of specialty colors, and the demands of the paint repair operations. The company has provided staff with sufficient technical and economic information to support this request. The proposed consent order also provides for an equivalent emission limit in the event that paint reformulation alone does not provide compliance and transfer efficiency improvements become necessary. Recordkeeping and quarterly reporting are also required.

Staff recommends, subject to comments received during the public comment period, approval of the proposed consent order.

Submitted by: David M. Yanochko
November 29, 1984
DMY:ns

STATE OF MICHIGAN

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
E. R. CAROFFO
MARIANNE J. FLUHARTY
ST[illegible]N V. MONSMA
O[illegible]WART MYERS
RAYMOND POUPORE
HARRY H. WHITELEY

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES
STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

AIR POLLUTION CONTROL COMMISSION
Lee E. Jager, Chairman
Jeanette R. Armstrong
W. Stanton Fulmer, D.D.S.
Michael E. Fletcher
Nicholas G. Kaufman
Samuel M. McMahon, M.D.
Patricia A. Morris
Ralph E. Morton, D.D.S.
Frank P. Rutter
Dennis P. Theisen, D.D.S.

State Secondary Complex
P.O. Box 30028
Lansing, Michigan 48909
(517) 322-1330

December 20, 1984

Mr. C. H. Porter
Environmental and Safety Engineering
Ford Motor Company
One Parklane Boulevard
Dearborn, Michigan 48126

Dear Mr. Porter:

The Michigan Air Pollution Control Commission will meet on Tuesday, January 15, 1985, in the Roy Manty Conference Room, Baker-Olin Building, Michigan Department of Public Health, 3500 North Logan, in Lansing, Michigan. The meeting will begin at 9:00 a.m., and an agenda will be forwarded to you in approximately two weeks.

At this meeting, the Commission has scheduled a public hearing on a proposed consent order for the control of volatile organic compound emissions from painting operations at the Romeo Tractor and Equipment Plant in the Village of Romeo. Copies of the notice of hearing, Staff Activity Report, and proposed consent order are enclosed. If approved, the consent order will be submitted to the U.S. Environmental Protection Agency for approval as a State Implementation Plan (SIP) revision.

If you have any questions prior to the public hearing, please contact our district engineer in Northville, Mr. R. Thomas Maki, at (313) 459-1940, or Mr. Dennis Drake in this office at (517) 322-1330.

Sincerely,

AIR POLLUTION CONTROL COMMISSION

MAH/ns

Mary Ann Halbeison
Secretary
(517) 322-1330

Enclosures

cc: R. Thomas Maki
Michael J. Koryto
Larry Kertcher, U.S. EPA

[illegible]1025-8
[illegible]

DEC 10 1984
AIR QUALITY DIVISION

NOTICE OF AIR POLLUTION HEARING

The Michigan Air Pollution Control Commission will hold public hearings on proposed "Stipulations for Entry of Consent Order and Final Order" under consideration to be entered with FORD MOTOR COMPANY for the control of volatile organic compound emissions from the following facilities in Macomb County:

MT. CLEMENS VINYL PLANT, City of Mt. Clemens: Emissions from vinyl coating operations shall comply with Rule 610 by January 1, 1986.

ROMEO TRACTOR AND EQUIPMENT PLANT, Village of Romeo: Emissions from the flat deck chassis paint booth shall comply with Rule 621 by December 31, 1984; the industrial tractor, agricultural tractor and touch-up paint repair booths by December 31, 1985; and the straddle mount chassis and small parts paint booths by December 31, 1986.

The hearings will be held at the Commission's monthly meeting scheduled for Tuesday, January 15, 1985, in the Roy Manty Conference Room, Baker-Olin Building, Michigan Department of Public Health, 3500 North Logan Street, in Lansing, Michigan. The meeting will convene at 9:00 a.m.

These orders, if approved, will be submitted to the U.S. Environmental Protection Agency for approval as State Implementation Plan (SIP) revisions. Copies of the proposed consent order and the staff activity report are available for inspection at the following locations or copies may be obtained by writing to the Commission's office in Lansing:

MT. CLEMENS: Environmental Health Division, Macomb County Health Department, 43525 Elizabeth Road.

NORTHVILLE: Air Quality Division, Department of Natural Resources, 15500 Sheldon Road (Phone: 313-459-1940).

LANSING: Air Quality Division, Department of Natural Resources, State Government Secondary Complex, General Office Building, 3rd floor, 7150 Harris Drive, Dimondale (Phone: 517-322-1330).

All persons are encouraged to participate in the public hearings and present their views on the proposed consent orders. Persons wishing to make statements are requested to submit written copies for the hearing record. Anyone unable to appear may submit a written statement by January 15, 1985, to the Air Pollution Control Commission, P.O. Box 30028, Lansing, Michigan 48909.

MICHIGAN AIR POLLUTION CONTROL COMMISSION

Robert Miller

Robert P. Miller, Executive Secretary

12/10/84

15500 Sheldon Road
Northville, Michigan 48167
September 11, 1984

FORD MOTOR COMPANY
Environmental and Safety Engineering
One Parklane Boulevard
Dearborn, Michigan 48126

Attention: Mr. C.H. Porter

SUBJECT: Ford Romeo Tractor & Equipment Plant
Rule 621 Draft Order No. 2

Dear Mr. Porter:

This is in response to your submittal of May 17, 1984 which included the Company's proposed modifications to the Air Quality Division's (AQD) Draft No. 1 of a Delayed Compliance Order (DCO) for Rule 621 at the Romeo Tractor and Equipment Plant. We have prepared and attached AQD Draft No. 2 for your review and comments. Wherever possible we have incorporated the Company's comments, as well as comments of AQD staff, into this draft.

Several aspects of Draft No. 2 deserve mention. It remains the position of the AQD that the proper format for this consent order is as a Delayed Compliance Order. The fact that compliance coatings are not currently available for the applications at the Romeo Plant does not, in and of itself, constitute adequate grounds to submit this program as a SIP revision. In the Company's original compliance program submittal, dated August 20, 1982, several currently available compliance options, including carbon adsorption and incineration were dismissed due only to economic considerations. The Company's position was not that high solids enamels are the only available compliance option but are the most economical compliance option. The AQD agrees with this position. However, because of the current availability of these alternate compliance options, we are unable to support, nor is it likely that the Federal Environmental Protection Agency would approve, this order as a SIP revision.

Secondly, staff does not consider the emission limit of 4.8 pounds of VOC per gallon of coating, minus water, as applied for the tractor final repair operations to be a site specific RACT determination. It is staff's determination that the tractor final repair operations meet the definition of a truck final repair operation and are therefore subject to the emission limit specified in Section 1(d) of Rule 621 for such operations. This determination also supports the DCO format of the Draft Consent Order.

(continued)

9-11-84

Lastly, AQD staff has recently been informed by the EPA that they will not approve a DCO for Rule 621 which contains any provisions for an averaging time. This is because the rule, as it is presently written, makes no reference to an averaging time. In EPA's judgement, meeting the respective emission limits on a 24-hour average basis does not provide for final compliance with Rule 621.

Please review Draft No. 2 and submit your comments as soon as possible.

If you have any questions regarding this matter, please feel free to contact this office.

Sincerely,

David M. Yanochko
Environmental Engineer
Air Quality Division
(313) 459-1940

DMY/sh
Enclosure

cc: Ken Jenkins, Plant Engineering Supervisor
Ford Romeo Tractor & Equipment Plant

Dennis Drake, Regional Compliance Supervisor
AAir Quality Division

Robert Irvine
SIP Unit, Air Quality Division

MAY 7 1984

5HW-13

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. J. Moosekian
Environmental Representative
Ford Motor Company
Romeo Tractor Company
701 East 32 Mile Road
Romeo, Michigan 48065

Re: MID 078400165

Dear Mr. Moosekian:

By now you should have received an acknowledgement of our receipt of the Part A permit application material for the above-referenced hazardous waste facility under the Resource Conservation and Recovery Act (RCRA) permit program. Accordingly, this letter constitutes the next step in the formal process leading toward issuance or denial of an RCRA permit. Under the authority of 40 CFR 270.10 this is a formal request for submittal of Part B of the permit application for the above-referenced facility.

Enclosed is a copy of 40 CFR 270.14-270.29 which lists the items that constitutes a Part B for your facility. Your Part B application must be submitted in quadruplicate and postmarked no later than November 23, 1984. Please uniquely number each page of the application including all attachments (maps, specifications, etc.). A certification statement identical to one stated in 40 CFR 270.11(d) must accompany the application and all additional submittals. Send your application to the following address:

RCRA ACTIVITIES
Part B Permit Application
U.S. EPA, Region V
P.O. Box A3587
Chicago, Illinois 60690-3587

We are committed to conducting the RCRA permit process as efficiently as possible. Consequently, I suggest you contact Mr. David Homer of my staff at (312) 886-6146 as you begin preparing your application. Mr. Homer will be available to discuss specific needs of your application or to meet with you in Chicago. These efforts are intended to generate complete applications without requiring any information beyond that which is necessary to make RCRA permit decisions.

Failure to furnish the complete Part B permit application by the above date, and to provide in full all required information, is grounds for termination of interim status under 40 CFR 270.10.

Information in the Part B permit application can be disclosed to the public, according to the Freedom of Information Act and U.S. Environmental Protection Agency (U.S. EPA) Freedom of Information regulations. If you wish, however, you may assert a claim of business confidentiality by printing the word "Confidential" on each page of the application which you believe contains confidential business information. All incoming materials containing confidential business information should be sent in a double envelope--one envelope inside the other. The inner envelope is to be addressed to the docket control officer (DCO) with the following instructions: "to be opened only by the DCO". U.S. EPA will review business confidentiality claims under regulations in 40 CFR Part 2, and may later request substantiation of such claims. Please review these rules carefully before making a claim.

If you claim parts of the application as confidential please provide us with a public information copy of the application. The public information copy must be identical to the full application with the exclusion of the confidential information.

We will coordinate review of the application with the Michigan Department of Natural Resources. It is possible that during the processing of your application the State hazardous waste program may become authorized to issue RCRA permits for your type of facility. In that case direct Federal processing will cease and the State in lieu of U.S. EPA will make the final determination on your application.

We look forward to receiving your Part B permit application.

Sincerely yours,

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

Enclosure 40 CFR 270.14-270.29
Guidance for Permit Application Preparation

cc: Alan J. Howard,
Michigan Department of Natural Resources

5HW-13:WEMUNO:ap:6-6136:4-25-84

	TYPIST	AUTHOR	STU #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB ~~CHIEF~~	WMD DIRECTOR
INITIALS	ap							
DATE	4-25-84				5/3/84	5/3/84	5/4/84	

P 371 346 056

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

Hw 13 *(See Reverse)*

Sent to Mr. J. Moosekian	
Ford Motor Co.	
Street and No. Romeo Tractor Co.	
P.O., State and ZIP Code 701 E. 32 Mile Rd.	
Romeo, Michigan 48065	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

CHICAGO, IL LOOP STA. MAY 1984 USPO

PS Form 3800, Feb. 1982

MR. W.E. MUNO, USEPA, 230 S. Dearborn, Chicago, IL 60604

PS Form 3811, July 1983

SENDER: Complete items 1, 2, 3 and 4. Homer

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to: Mr. J. Moosekian
Ford Motor Co., Romeo Tractor Co.
701 East 32 Mile Road
Romeo, MI 48065

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
P371346056

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X J. Moosekian 5/9/84

6. Signature – Agent
X

7. Date of Delivery

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

DEC 01 1982

Mr. F. J. Kallin, Manager
Facility Environmental Control
Ford Motor Company
The American Road
Dearborn, Michigan 48121

Dear Mr. Kallin:

This letter is in reference to your Permit to Install issued on January 25, 1968, for an incinerator to burn paint spray booth paint filters, located at the Romeo Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan.

This permit, identified as No. 21-67I, has been voided because your letter dated October 25, 1972, informed us of your decision to discontinue the incinerator's use.

Please contact me at (517) 322-1333 if you have any questions concerning this permit.

Sincerely,

Danita J. Brandt, Engineer
Permit Unit
Air Quality Division

DJB:kb
Enclosure
cc: Tom Maki

21-67I

AIR POLLUTION CONTROL SECTION
DIVISION OF OCCUPATIONAL HEALTH
MICHIGAN DEPARTMENT OF PUBLIC HEALTH
3500 North Logan Street, Lansing, Michigan 48914

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION

for authority to construct, install or alter

and

for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1. PERMIT TO BE ISSUED TO: *(Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)*
Ford Motor Company

2. MAILING ADDRESS: *(Number, Street, City or Village, Zip Code)*
The American Road, Dearborn, Michigan 48121

3. EQUIPMENT OR PROCESS LOCATION: *(Number, Street, City or Village, Township, Zip Code)*
Romeo Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan

4. TYPE OF ORGANIZATION:
[X] Corporation [ ] Partnership [ ] Individual Owner [ ] Governmental Agency

5. GENERAL NATURE OF BUSINESS:
Automobile Manufacturing

6. EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment:

Incinerator to burn paint spray booth paint filters - approximate usage: one to two hour burning period twice or three times weekly.

7. ESTIMATED COST: Air Pollution Control Equipment $_____ Total Project $_____

8. PRESENT STATUS OF EQUIPMENT: *(Check and complete applicable items)*

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started		
( ) Construction or installation partly completed		Mid-January, 1968
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9. NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) None *(Permit Number)* NONE

10. TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) T. A. Dunlap *(Title)* Director, Plant Engineering Office
(Signature) [signature] *(Date)* 12-21-67 *(Phone No.)* 32-23147

MDPH USE ONLY

DISPOSITION OF APPLICATION:
Permit to install approved and issued on ~~2/8/68~~ 1/25/68 [signature]
Permit to operate approved and issued on _____

VOID
DEC 01 1982
[signature]

FORM AP-1-67 *(Instructions for completing this form are on reverse side)*

Ford Motor Company

The American Road
Dearborn, Michigan 48121

October 25, 1972

State of Michigan Department of
Public Health
Bureau of Industrial Health and
Air Pollution Control
1899 Orchard Lake Road
Pontiac, Michigan 48053

Attention: Mr. John L. Sebenick, Engineer
Air Pollution Control Division

Gentlemen:

This letter is in response to your letter of September 28, 1972 indicating the incinerator at our Romeo Equipment Plant is not in compliance with state regulations.

After making a thorough investigation of the incinerator operation, the decision was made to discontinue its use. Therefore, no permit application will be made for alterations.

If additional information is required, please contact this Office.

Very truly yours,

F. J. Kallin, Manager of
Facility Environmental Control
Plant Engineering Office

MCH/(P-1)11

FORD MOTOR CO
ROMEO EQUIPMENT PLANT
ROMEO

Ford Motor Company

Plant Engineering Office

THE AMERICAN ROAD
DEARBORN, MICHIGAN

December 21, 1967

Michigan Department of Public Health
3500 North Logan Street
Lansing, Michigan 48914

Attention: Mr. Bernard D. Bloomfield
Assistant Director

Subject: Permit to Install Incinerator
Romeo Equipment Plant

Dear Mr. Bloomfield:

Attached is an application to install an incinerator to burn filter mats used on the exhaust from paint spray booths.

If you have any questions regarding this application, please contact Mr. R. W. Wiesner on 32-23147, Area Code 313.

Please send the resultant permit directly to this Office.

Very truly yours,

T. A. Dunlap, Director
Plant Engineering Office

Attachment

APPLICATION ATTACHMENTS

1. Equipment Location Drawings

E-531-11-3005 T "General Location of Plant Property and Structures"

B-130-13 B "General Plant Map"

2. Equipment Specification

Make: Research Cottrell

Type: 8 Group 18 Vertical Flow
Filled tile with tile dividing wall, two units each having 25 ducts - 10" x 13' - 6" x 17' - 5" high in direction of gas travel so that each unit can be independently energized and operated.

3. Process or Use Specification

Our electrostatic precipitator was installed in 1957. It is a conventional unit designed and built by Research-Cottrell for our recovery boiler. The boiler feed currently runs up to 1,950,000 lb. per day of black liquor at 65% solids. The gaseous discharge up the stack is about 61,000 CFM at STP, or about 4,900 lb. per minute. Our particulate emission is about 5,000 lb. per day (88% efficiency) at the present time and it should be reduced back to about 2,100 lb. per day when the precipitator is rebuilt and its efficiency is restored to the original 95%. The particles consist of approximately 99% sodium sulfate and about 1% of the particles is sodium carbonate. Estimated mass median diameter is 0.7 micron. The estimated standard geometric deviation is 1.5 to 2.0. The temperature of the stack gases is about 260° F and the pressure in the stack is essentially atmospheric.

4. Operating Schedule

24 hr. a day, 7 days a week, with shutdowns per our operating schedules.

5. Process Weight

Up to 1,950,000 lb. per day of black liquor at 65% solids.

6. Fuels and Firing Devices

A. Normal Fuel - Kraft Black liquor described in 5 above.
Firing device, 1-B & W Black Liquor
Nozzle - Sizes 26 through 34
Capacity - Minimum 0 Maximum 135 GPM

B. Fuel Oil - Auxiliary only
No. 6 Gallons per hr. - Max. 1650
Sulfur Content Approximately 3%
Preheat Temperature - 180°-200° F
Firing device - B & W "Y" Jet Steam Atomizing Burners
Maximum No. in Service - 6
Capacity: Minimum - 0 • Maximum 6 GPM each.

7. Flow Diagram

--Diagram No. 115-8 Bleached Kraft Pulp Mill Diagram

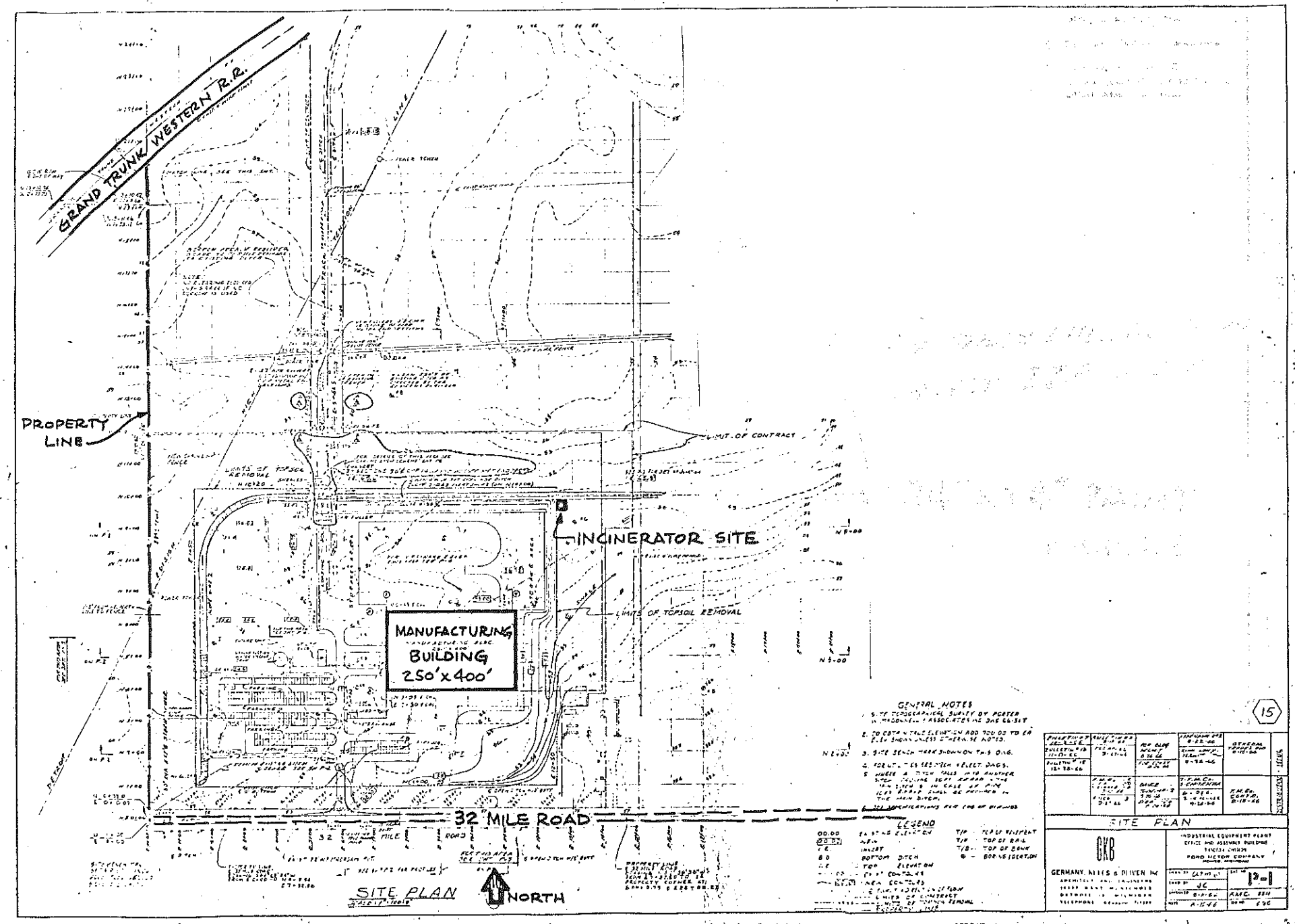
8. Drawings on Equipment

--Research-Cottrell Drawings

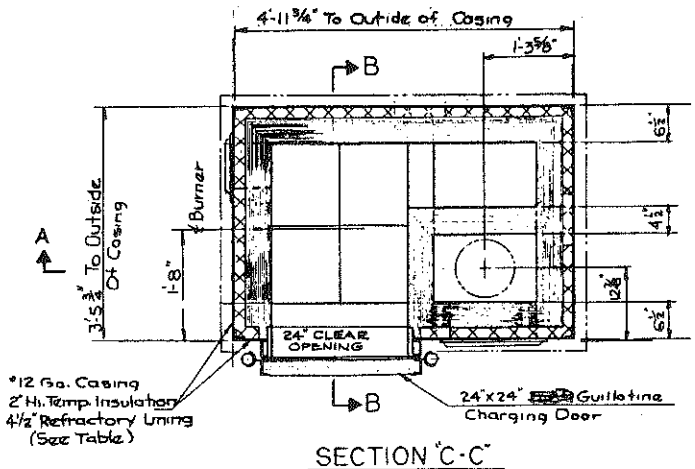
37427-A	Plant Layout
36210-A	Wire Supporting Frame Assembly
36559-A	Precipitator Assembly
36559-A	Diagram of Shell

--PCA Drawings

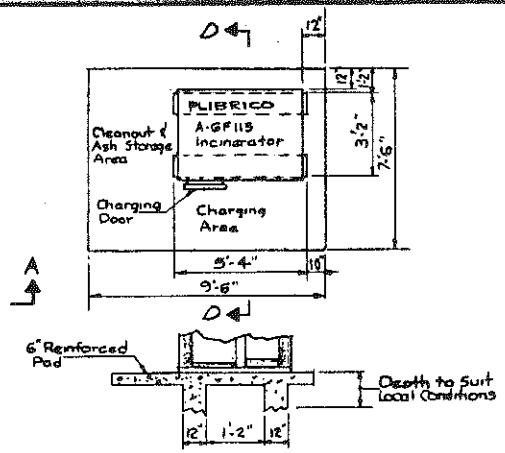
D531-41-427 S-1	Recovery Boiler Plant Structural Precipitator Breeching SH 1
D531-41-429 S-1	Recovery Boiler Plant Structural Precipitator Breeching SH 3


GRAND TRUNK WESTERN R.R.
PROPERTY LINE
LIMIT OF CONTRACT
INCINERATOR SITE
LIMITS OF TOPSOIL REMOVAL
MANUFACTURING BUILDING 250'x400'
32 MILE ROAD
SITE PLAN
NORTH
GENERAL NOTES
LEGEND
SITE PLAN
GKB
GERMANY, KILES & RIVEN, INC.
INDUSTRIAL EQUIPMENT PLANT
OFFICE AND ASSEMBLY BUILDING
FORD MOTOR COMPANY
15

Notes
1. Gas outlet right top unless otherwise specified.
2. Burner-Optional Equipment:
3. 15"x13½" & 18"x8" C.O. doors located as shown unless otherwise specified.



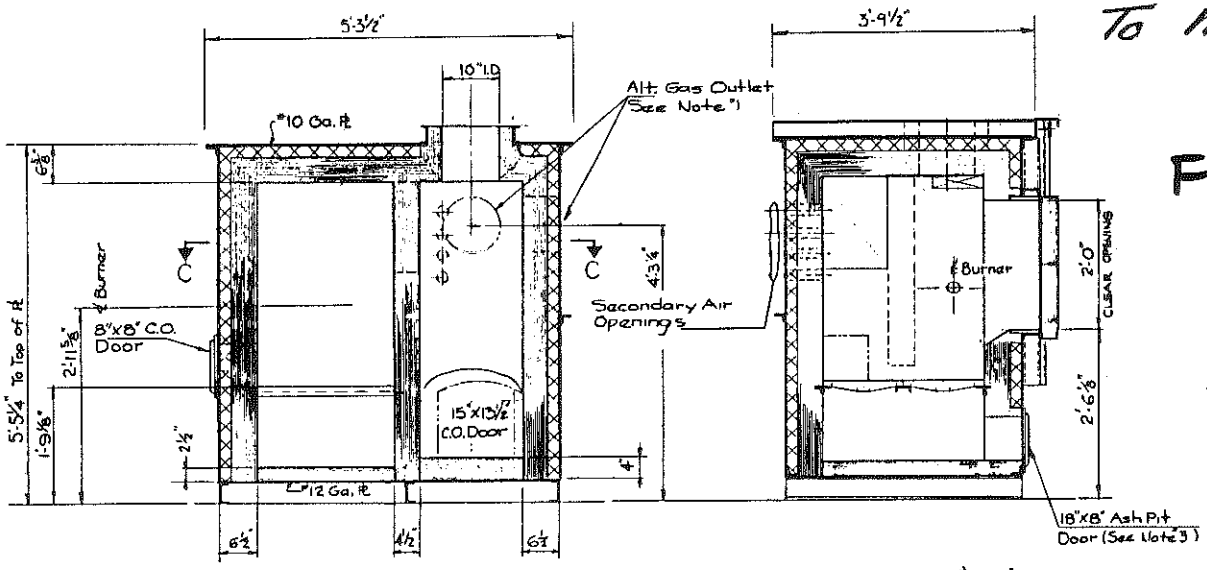
SECTION "C-C"



Section "D-D"
Suggested Foundation Pad

NOTE: 14"ϕ STACK WILL BE INSTALLED TO MEET LATEST IIA SPECS.

FUEL: 24"x24" PAINT FILTERS.



SECTION "A-A"

SECTION "B-B"

Recommended Lining & Anchorage		
Lining	Anchors In Wall	Anchors In Arch
2" Blk. Insulation 4½" Plicast	4½" Plicast Hooks	5½ Plicast Hooks
2" Blk. Insulation 4½" Plibrico	Z1 Clips w/Nut Spacer D-3 Anchors	Z1" Clips w/Nut Spacers AA6 Anchors

DESCRIPTION
115#/HR. DRY TYPE 1 WASTE

IIA STANDARD

DESIGNATIONS
PLIBRICO | PLICAST | INSULATION
FIRE BRICK | COM. BRICK | CONCRETE

Plibrico Company
REFRACTORY ENGINEERING & CONSTRUCTION FOR BOILERS • INCINERATORS • INDUSTRIAL FURNACES.
CHICAGO, ILLINOIS NATIONWIDE SERVICE.

A-GF115

RECORD
DATE 3-1-64 SCALE 3/16"=12"
DRAWN BY G.C.A. CHECKED BY C.J.F.
APPROVED BY PROJ. NO.
SHEET OF
No. P-4310-S

This drawing is the property of the Plibrico Company and is loaned without consideration other than the borrower's agreement that it shall not be reproduced, copied, loaned or disposed of, directly or indirectly, nor used for any purpose other than that for which it is specifically furnished.

RECORD

CHANGES

1. 56.15

" = 30'-0 APPROXIMATE

CHARGE FROM WEST SIDE

DRAWING NO.
427-94

C SHEET 1

" = 30'-0 APPROXIMATE

DRAWING NO. 4ZT-94

C SHEET 1

CHARGE FROM WEST SIDE.

FIRING AND CLEANOUT TOOLS FURNISHED
IIA LABEL ON INSTRUCTION SHEET
ATTACHED TO UNIT.

ROVISION FOR APPROX 4'x4'
TS AND DRUMS

AMT.	SYM.	SHEET	NAME OR STOCK SIZE	MATERIAL	WT. LBS.

SERVICE CO,
ROIT. 48216
-TYPE I WASTE
OB # 198

PART NO.	SHEET	SHEETS	DRAWING NO.
	1	1	4ZT-94

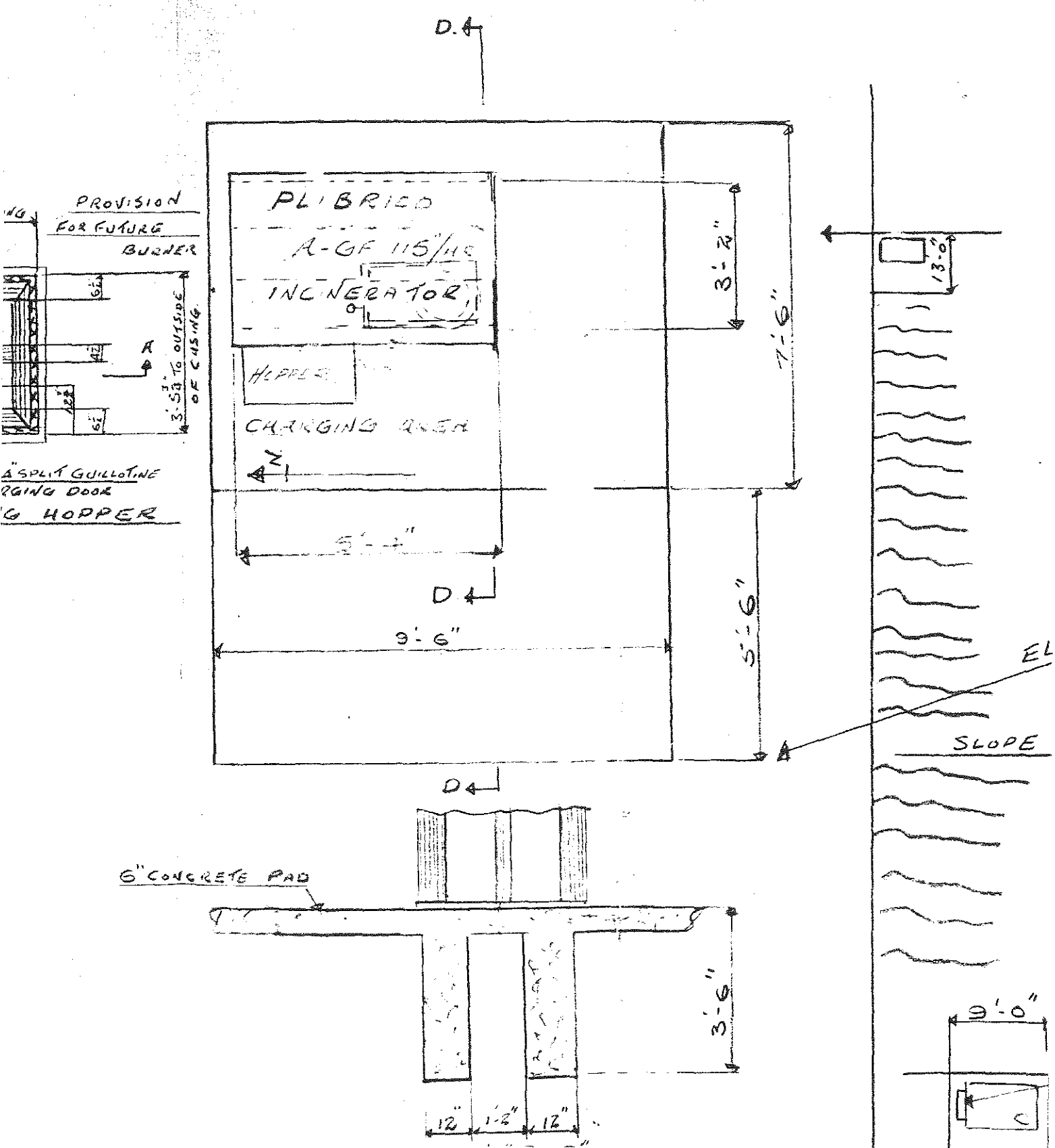
DES. BY	DET. BY	TITLE
	S. McCo	ASSBLY. OF 115#/HR INCINERATOR AND STACK ROMEO EQUIPT. PLANT.
CHECKED BY	SAFETY O K	
DATE 11/7/67	SCALE 3/8" = 1'-0"	DIVISION TRACTOR.

FORD MOTOR CO.
DEARBORN, MICHIGAN

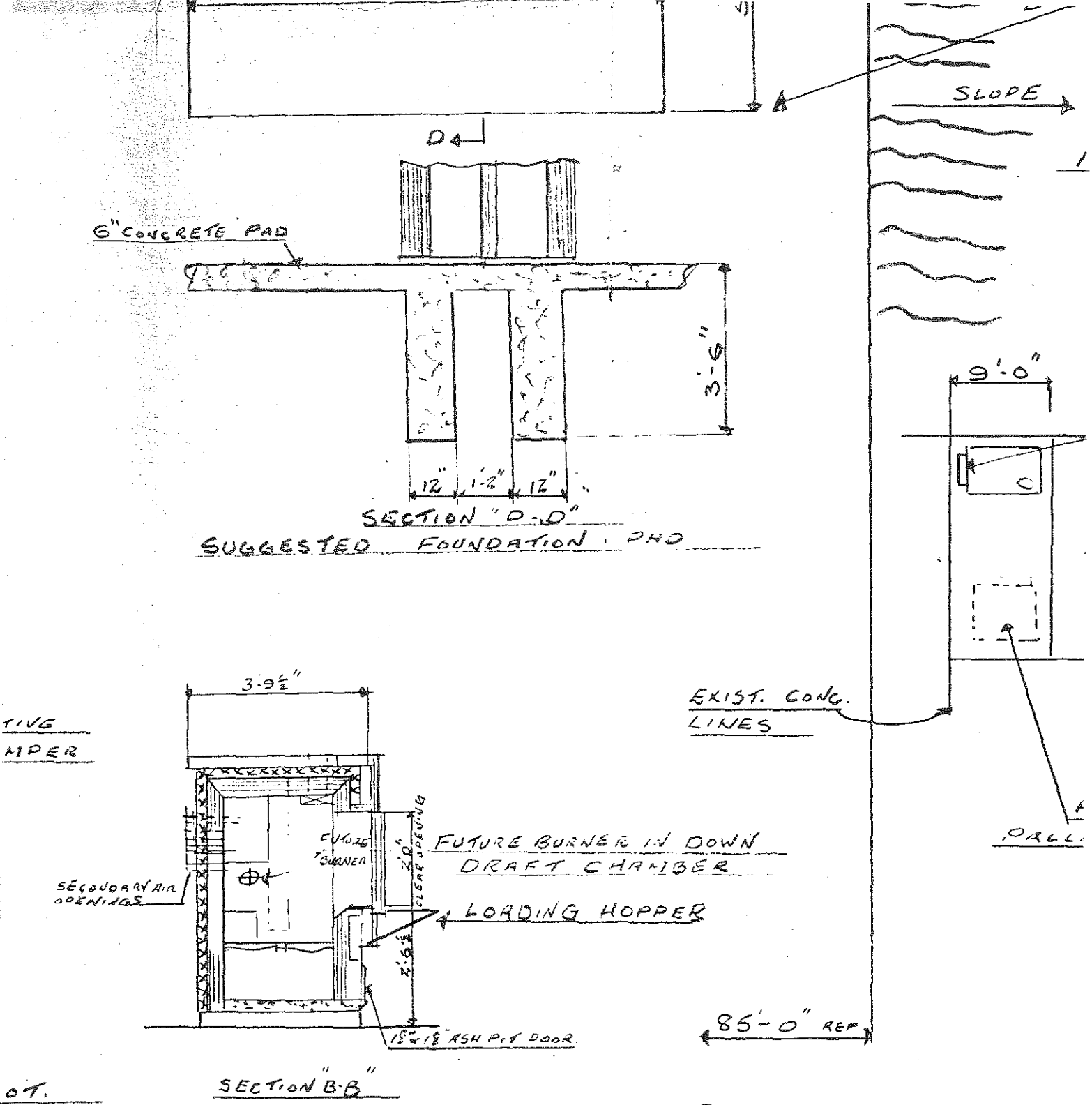
).	PART NO.

HEET ALSO USED FOR

CES UNLESS OTHERWISE SPECIFIED.
ILS.



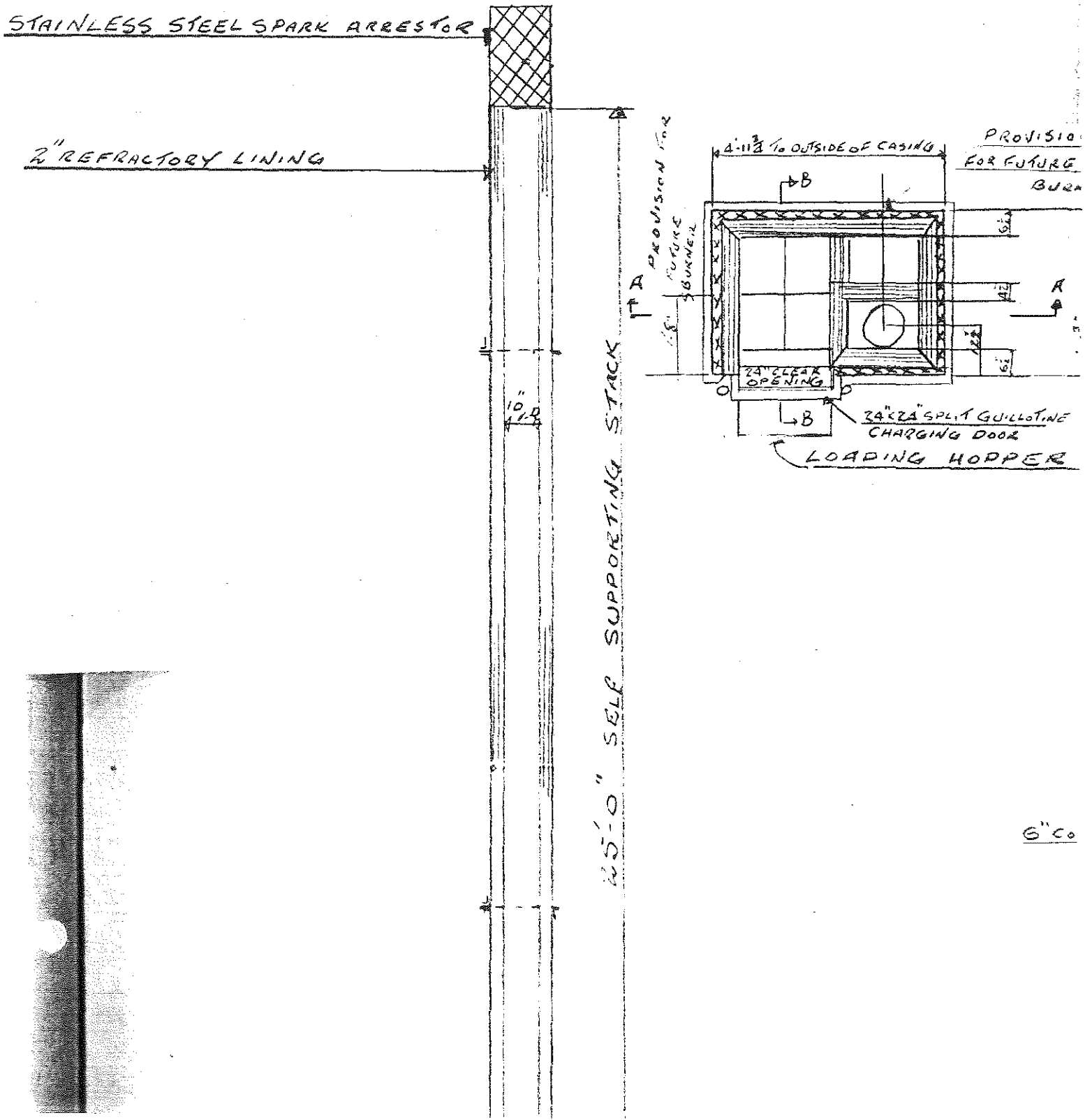
D.
PROVISION
FOR FUTURE
BURNER
PLIBRICO
A-GF 115/HR
INCINERATOR
HOPPER
CHARGING AREA
3'-2"
7'-6"
13'-0"
A
3'-5 3/4" TO OUTSIDE OF CASING
SPLIT GUILLOTINE
RGING DOOR
G HOPPER
5'-4"
D
9'-6"
5'-6"
EL
SLOPE
D
6" CONCRETE PAD
3'-6"
12"
1'-2"
12"
9'-0"

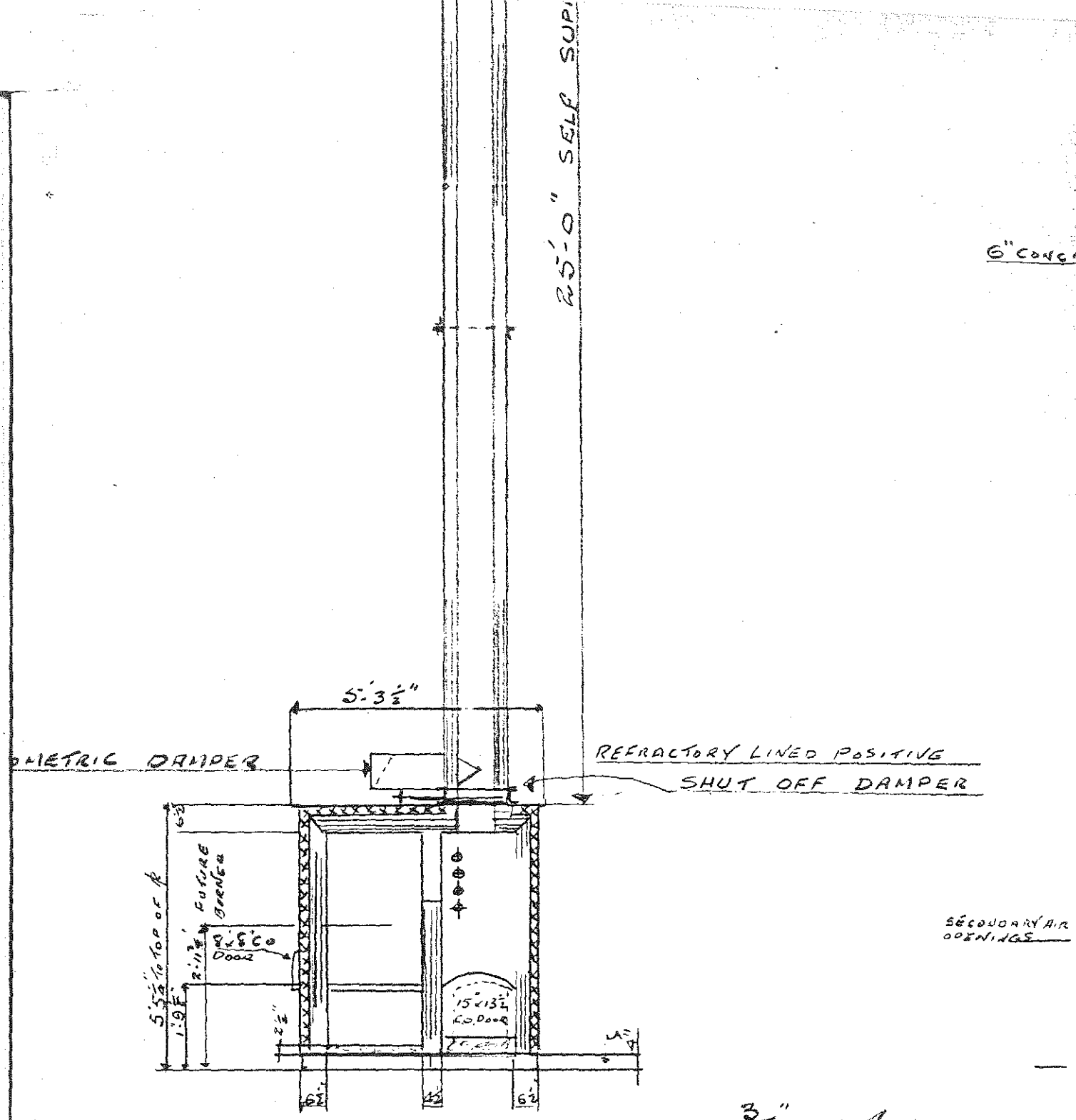


PLIBRICO SALES
140 12TH STREET - DE
MODEL A-GF 115#/H
DRG# P-4310-S PLIBRICO

		DRAWING
APPROVED BY	DATE	TH

±.010 ALLOWED ON DIMENSIONS CONTROLLING FINISHED SUR
MARK IDENTIFICATION AND MATERIAL NUMBERS ON TOOL DE
PAINT IDENTIFICATION NUMBERS ON STRUCTURAL WORK.


STAINLESS STEEL SPARK ARRESTOR
2" REFRACTORY LINING
10" I.D.
45'-0" SELF SUPPORTING STACK
PROVISION FOR FUTURE BURNER
4'-11 3/4" O.D. OUTSIDE OF CASING
PROVISION FOR FUTURE BURNER
A
B
24" CLEAR OPENING
24"x24" SPLIT GUILLOTINE CHARGING DOOR
LOADING HOPPER
6" Co



SECTION "A-A"

3/8" = 1 FOOT.

T. Maki

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
P.O. BOX 30028
LANSING, MICHIGAN 48909

STATE OF MICHIGAN

AIR USE PERMIT APPLICATION

APPLICATION NO. 205-87A

RT

FOR AUTHORITY TO INSTALL, CONSTRUCT, RECONSTRUCT, RELOCATE, OR ALTER, AND OPERATE PROCESS, FUEL-BURNING, OR REFUSE-BURNING EQUIPMENT AND/OR CONTROL EQUIPMENT (PERMITS TO INSTALL AND OPERATE ARE REQUIRED BY ADMINISTRATIVE RULES PURSUANT TO ACT 348, P.A. 1965, AS AMENDED).

AIR QUALITY DIVISION

SEP 19 1989

PERMIT SECTION

1. APPLICANT: Business License Name of Corporation, Partnership, Individual Owner, Government Agency
Ford Motor Company

2. MAILING ADDRESS: Number and Street; City or Village; State; Zip Code
The American Road, Dearborn, MI 48121

3. EQUIPMENT OR PROCESS LOCATION: Number and Street; City, Village or Township
Romeo Engine Plant, 701 E. 32 Mile Road, Romeo, MI

COUNTY: Macomb

ZIP CODE: 48065

4. GENERAL NATURE OF BUSINESS:
Manufacture of automobile engines.

5. EQUIPMENT OR PROCESS DESCRIPTION:
Engine manufacturing facility which includes machining operations for engine blocks, main bearing caps, engine heads, crankshafts, camshafts and subsequent engine assembly. Other associated operations include engine hot test and dynomometer testing.

6. ESTIMATED COST:
Air Pollution Control Equipment $ 2.5 Million Total Project $

7. ACTION AND TIMING:

	ESTIMATED STARTING DATE	ESTIMATED COMPLETION DATE
[X] Installation, construction, reconstruction, or alteration	6/16/87	9/30/89
[ ] Relocation		
[ ] Change of Ownership		

8. NAME OF PRIOR OWNER AS IN ITEM 1 ABOVE, AND PRIOR AIR USE PERMIT NUMBER, IF ANY:
NAME Ford Motor Company PERMIT NO. 205-87

9. NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM
Name G. R. Pfeil Signature G. R. Pfeil
Title: Plant Manager Date: Phone No. ( )

10. CONTACT PERSON IF DIFFERENT THAN ITEM 9:
Name R. Berger, Engine Division (313) 322-3724
S. Swatsenbarg, Romeo Engine Plant Phone No. ((313) 752-8087

11. DISPOSITION OF APPLICATION: FOR DNR USE ONLY

Receipt of all information required by Rule 203 _____

Permit to install approved * on _____ Signature _____

Permit to operate approved * on _____ Signature _____

Application/permit voided on _____ Signature _____

Application/permit denied on _____ Signature _____

*Subject to compliance with all Commission Rules and Conditions stipulated in the attached supplement.

DIVIS.
SEP 19 1989
PERMIT SECTION

Ford Motor Company

Romeo Engine Plant
701 E. 32 Mile Road
Romeo, Michigan 48065

September 15, 1989

Mr. J. L. Trout
Southeast Permit Unit
Air Quality Division
Department of Natural Resources
P.O. Box 30028
Lansing, MI 48909

Dear Mr. Trout:

An Air Use Permit Application was sent to you on March 12, 1987, requesting authority to install process and control equipment for the Romeo Engine Plant, located at 701 E. 32 Mile Road, Romeo, Michigan. The application, identified as No. 205-87, was evaluated and approved by the Air Quality Division (ref: letter from J. L. Trout dated April 28, 1987). This letter is to inform you of engineering design changes to the originally proposed manufacturing processes and air emissions collection devices. A revised Air Use Permit Application is enclosed.

The original application was based upon machining operations that were predominantly dry operations. Subsequent engineering design changes have rendered all operations as wet machining using soluble oil, with the exception of the Main Bearing Cap broaching operation. Therefore, our emissions collection devices have been changed to allow for wet particulate capture.

The collection system operation will begin at the end of September, 1989. Full production will begin in April, 1990. Prior to full production, product validation and prove out runs will occur.

Enclosed in this package you will find:

1) a data sheet including pertinent information on the oil mist and dust collection systems,

2) drawings on the ducting and location of the mist collection system for all of the affected machining departments, and

3) product literature, including photographs, descriptions and specifications for the collection equipment.

If you have any questions or need additional information, feel free to contact Ms. R. Berger on (313) 322-3724 or Ms. S. Swatsenbarg on (313) 752-8087.

Very truly yours,

G. R. Pfeil
Plant Manager

GRP/ct

Enclosure

ROMEO ENGINE PLANT
OIL MIST/DUST COLLECTION
AIR USE PERMIT REVISION DATA SHEET

UNIT NO.	LOCATION	DEPARTMENT	CAPACITY CFM	EMMISSION TYPE	* UNCONTROLLED RATE ESTIMATED (LB/HOUR)	** CONTROLLED RATE ESTIMATED (LB/HOUR)	COLLECTION EFFICIENCY	STACK DISCHARGE HEIGHT A.F.F. (FEET)	STACK DIAMETER AT DISCHARGE (INCHES)	OPERATING SCHEDULE (HRS/WK)	SYSTEM STARTUP DATE
MOM-1	G-19	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-2	K-20	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-3	M-20	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-4	M-18	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-5	E-15	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-6	G-15	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-7	K-16	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-8	V-15	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-9	E-13	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-10	G-13	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-11	M-10	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-12	E-11	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-13	H-10	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-14	K-10	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-15	P-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-16	R-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-17	T-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-18	C-9	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-19	H-7	CONN ROD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	TBD
MOM-20	H-4	CONN ROD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	TBD
MOM-21	E-2	CAMSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MDC-1	V-14	BLOCK	10,000	C.I. DUST	24	0.24	99.0%	40	28	102	Sept-89

* Estimated based on similar installations
** Estimated based on vendor information and testing on similar installations

September 7, 1989

ROMEO ENGINE PLANT
OIL MIST/DUST COLLECTION
AIR USE PERMIT REVISION DATA SHEET

UNIT NO.	LOCATION	DEPARTMENT	CAPACITY CFM	EMMISSION TYPE	* UNCONTROLLED RATE ESTIMATED (LB/HOUR)	** CONTROLLED RATE ESTIMATED (LB/HOUR)	COLLECTION EFFICIENCY	STACK DISCHARGE HEIGHT A.F.F. (FEET)	STACK DIAMETER AT DISCHARGE (INCHES)	OPERATING SCHEDULE (HRS/WK)	SYSTEM STARTUP DATE
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MOM-3	M-20	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-4	M-18	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-5	E-15	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-6	G-15	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-7	K-16	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-8	V-15	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
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MOM-11	M-10	CYL. HEAD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-12	E-11	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-13	H-10	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MOM-14	K-10	CRANKSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
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MOM-16	R-10	BLOCK	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
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MOM-19	H-7	CONN ROD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	TBD
MOM-20	H-4	CONN ROD	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	TBD
MOM-21	E-2	CAMSHAFT	20,000	OIL MIST	60.5	0.605	99.0%	41	40	102	Sept-89
MDC-1	V-14	BLOCK	10,000	C.I. DUST	24	0.24	99.0%	40	28	102	Sept-89

* Estimated based on similar installations
** Estimated based on vendor information and testing on similar installations

September 7, 1989

ARTMENT OF NATURAL RESOURCES
QUALITY DIVISION
O. BOX 30028
ANSING, MICHIGAN 48909

STATE OF MICHIGAN

AIR USE PERMIT APPLICATION

APPLICATION NO. 205-87A

RT

FOR AUTHORITY TO INSTALL, CONSTRUCT, RECONSTRUCT, RELOCATE, OR ALTER, AND OPERATE PROCESS, FUEL-BURNING, OR REFUSE-BURNING EQUIPMENT AND/OR CONTROL EQUIPMENT (PERMITS TO INSTALL AND OPERATE ARE REQUIRED BY ADMINISTRATIVE RULES PURSUANT TO ACT 348, P.A. 1965, AS AMENDED).

DIVISION

SEP 19 1989

PERMIT SECTION

1. APPLICANT: Business License Name of Corporation, Partnership, Individual Owner, Government Agency
Ford Motor Company

2. MAILING ADDRESS: Number and Street; City or Village; State; Zip Code
The American Road, Dearborn, MI 48121

3. EQUIPMENT OR PROCESS LOCATION: Number and Street; City, Village or Township
Romeo Engine Plant, 701 E. 32 Mile Road, Romeo, MI

COUNTY: Macomb

ZIP CODE: 48065

4. GENERAL NATURE OF BUSINESS:
Manufacture of automobile engines.

5. EQUIPMENT OR PROCESS DESCRIPTION:
Engine manufacturing facility which includes machining operations for engine blocks, main bearing caps, engine heads, crankshafts, camshafts and subsequent engine assembly. Other associated operations include engine hot test and dynomometer testing.

6. ESTIMATED COST:
Air Pollution Control Equipment $ 2.5 Million Total Project $

7. ACTION AND TIMING:

	ESTIMATED STARTING DATE	ESTIMATED COMPLETION DATE
[X] Installation, construction, reconstruction, or alteration	6/16/87	9/30/89
[ ] Relocation		
[ ] Change of Ownership		

8. NAME OF PRIOR OWNER AS IN ITEM 1 ABOVE, AND PRIOR AIR USE PERMIT NUMBER, IF ANY:
NAME Ford Motor Company PERMIT NO. 205-87

9. NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM
Name G. R. Pfeil Signature G. R. Pfeil
Title: Plant Manager Date: Phone No. ( )

10. CONTACT PERSON IF DIFFERENT THAN ITEM 9:
Name R. Berger, Engine Division (313) 322-3724
S. Swatsenbarg, Romeo Engine Plant Phone No. ((313) 752-8087

11. DISPOSITION OF APPLICATION: FOR DNR USE ONLY

Receipt of all information required by Rule 203 _____

Permit to install approved * on _____ Signature _____

Permit to operate approved * on _____ Signature _____

Application/permit voided on _____ Signature _____

Application/permit denied on _____ Signature _____

*Subject to compliance with all Commission Rules and Conditions stipulated in the attached supplement.

AQ-1 INSTRUCTIONS FOR COMPLETING AND FILING ARE ON REVERSE SIDE PR 5615

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
P.O. BOX 30028
LANSING, MICHIGAN 48909

STATE OF MICHIGAN

AIR USE PERMIT APPLICATION

APPLICATION NO. 205-87

FOR AUTHORITY TO INSTALL, CONSTRUCT, RECONSTRUCT, RELOCATE, OR ALTER AND OPERATE PROCESS, FUEL-BURNING, OR REFUSE-BURNING EQUIPMENT AND/OR CONTROL EQUIPMENT (PERMITS TO INSTALL AND OPERATE ARE REQUIRED BY ADMINISTRATIVE RULES PURSUANT TO ACT 348, P.A. 1965, AS AMENDED).

AIR QUALITY DIVISION
MAR 16 1987
PERMIT SECTION

1. APPLICANT: Business License Name of Corporation, Partnership, Individual Owner, Government Agency
Ford Motor Company

2. MAILING ADDRESS: Number and Street; City or Village; State; Zip Code
The American Road; Dearborn, Michigan; 48121

3. EQUIPMENT OR PROCESS LOCATION: Number and Street; City, Village or Township
701 East 32 Mile Road; Romeo, Michigan

COUNTY: Macomb County

ZIP CODE: 48065

4. GENERAL NATURE OF BUSINESS:
Manufacture of Automobile Engines

5. EQUIPMENT OR PROCESS DESCRIPTION:
Engine Manufacturing Facility which includes machining operations for engine blocks, main bearing caps, engine heads, crankshafts, camshafts, and associated miscellaneous processes.

See attachments for descriptions.

6. ESTIMATED COST:
Air Pollution Control Equipment $ Total Project $

7. ACTION AND TIMING:

	ESTIMATED STARTING DATE	ESTIMATED COMPLETION DATE
[X] Installation, construction, reconstruction, or alteration	6/16/87	9/30/89
[ ] Relocation		
[ ] Change of Ownership		

8. NAME OF PRIOR OWNER AS IN ITEM 1 ABOVE, AND PRIOR AIR USE PERMIT NUMBER, IF ANY:
NAME - PERMIT NO.

9. NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM
Name M.J. Evans Signature
Title: Manufacturing Manager Date: 3/12/87 Phone No. (313) 322-0921

10. CONTACT PERSON IF DIFFERENT THAN ITEM 9:
Name Joseph Dunkerley Phone No. (313) 337-1059

11. DISPOSITION OF APPLICATION: FOR DNR USE ONLY

Receipt of all information required by Rule 203 _____

Permit to install approved * on _____ Signature _____

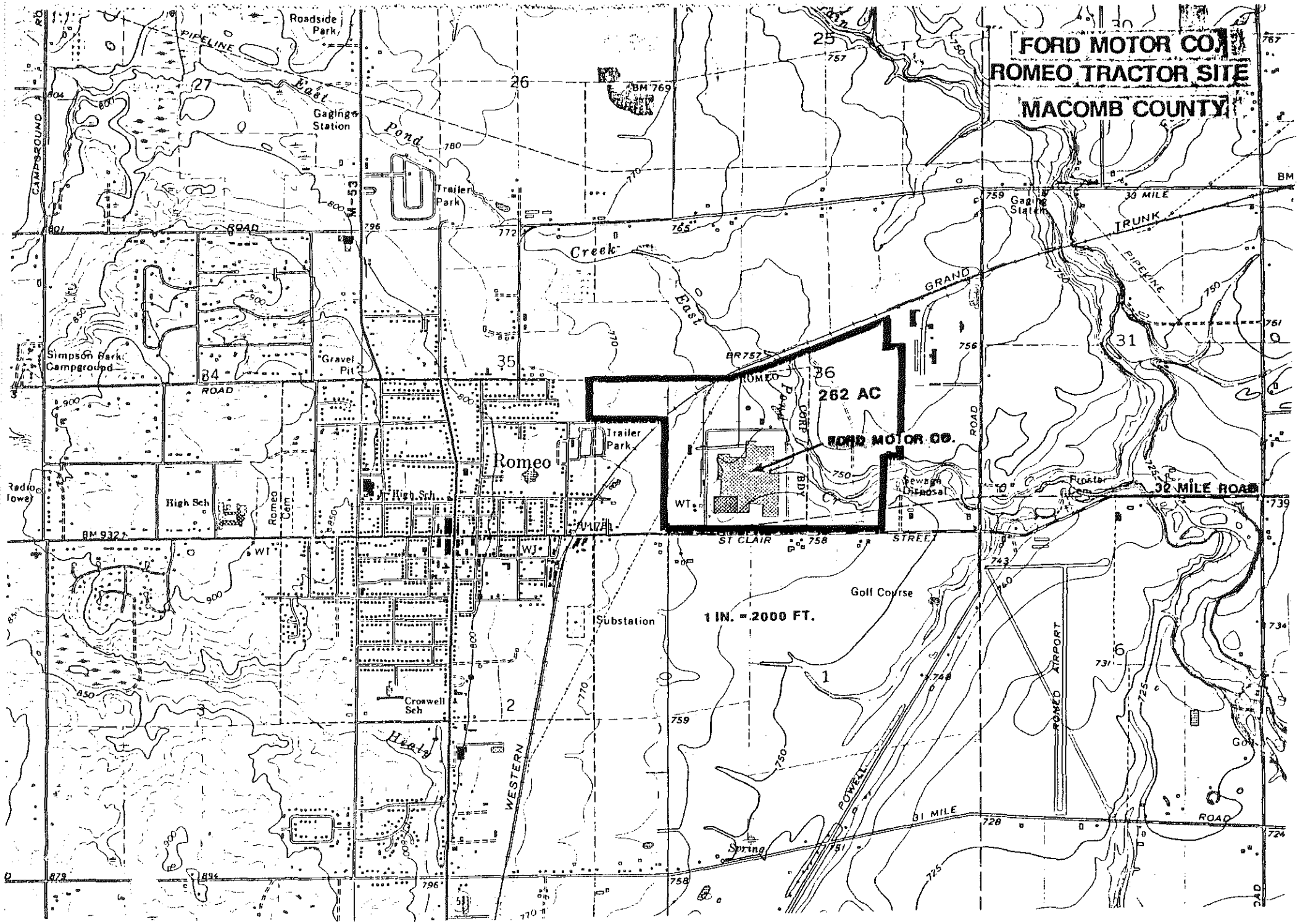
Permit to operate approved * on _____ Signature _____

Application/permit voided on _____ Signature _____

Application/permit denied on _____ Signature _____

*Subject to compliance with all Commission Rules and Conditions stipulated in the attached supplement.

AQ-1 INSTRUCTIONS FOR COMPLETING AND FILING ARE ON REVERSE SIDE PR 5615 5/84


FORD MOTOR CO.
ROMEO TRACTOR SITE
MACOMB COUNTY
262 AC
FORD MOTOR CO.
1 IN. = 2000 FT.
Romeo
Trailer Park
Roadside Park
Gaging Station
Simpson Park Campground
Gravel Pit
High Sch
Romeo Cem
Croswell Sch
Substation
Golf Course
Sewage Disposal
Frostar Cem
32 MILE ROAD
31 MILE ROAD
30 MILE
GRAND TRUNK
PIPELINE
ROAD
ST CLAIR STREET
WESTERN
POWELL
ROMEO AIRPORT
Spring
Healy
East Pond Creek
Creek
Pond
CORP BDY
Radio Tower
CAMPGROUND
M-53
BM 769
BM 932
BR 757
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AIR QUALITY DIVISION

MAR 16 1987

PERMIT SECTION

Inter Office

Engine Division
Manufacturing Engineering
Department B

March 12, 1987

Mr. Gerald Avery, Supervisor
Permit Unit
Department of Natural Resources
Air Quality Division
P.O. Box 30028
Lansing, MI 48909

Dear Mr. Avery:

Subject: Installation Permit Applications for 4.6 Liter 8 Cylinder Engine Program

Enclosed you will find a permit application for the Engine Manufacturing Facility which includes machining operations for engine blocks, engine heads, main bearing caps, crankshafts, camshafts and associated miscellaneous processes.

If you require any additional information please contact Mr. Joseph Lennon on (313) 322-1227.

Respectfully,

Amy Johnson for
M.J. Evans

AVJ/3.12.87/1(LANSING)

EXHAUST
The 4.6 liter 8 Cylinder block machining process will use air scrubbing dust collectors of the impingement scrubber type each vented to its own stack, with plant recirculation in the winter

(3) 30,000 ACFM
(1) 25,000 ACFM

Stack Type: Round 40" I.D.
Height: Above Roof 18'; Above grade 65'
Exhaust Gas: Temp. Ambient
Volume 30,000 ACFM
Velocity 3,500 FT/MIN

Stack Type: Round 40" I.D.
Height: Above Roof 18'; Above grade 65'
Exhaust Gas: Temp. Ambient
Volume 25,000 ACFM
Velocity 3,500 FT/MIN

PARTICULATE EMISSIONS

30,000 ACFM UNIT
Inlet: 1.98 #/hr Particulate
Outlet:0.0040 #/hr Particulate

25,000 ACFM UNIT
Inlet: 1.65 #/hr Particulate
Outlet:0.0030 Particulate #/Hr

Uncontrolled Particulate Emissions

Inlet #/Hr X HR/WK x WK/YR

#/TON

30,000 ACFM UNIT

$$\frac{1.98 \times 168.00 \times 52.00}{2000.00} = 8.65 \text{ TPY/collector}$$

8.65 x (3) Collectors= 25.95 TPY @ 30,000 ACFM

25,000 ACFM UNIT

$$\frac{1.65 \times 168.00 \times 52.00}{2000.00} = 7.21 \text{ TPY/collector}$$

7.21 x (1) Collectors= 7.21 TPY @ 25,000 ACFM

4.6 LITER 8 CYLINDER ENGINE
MAIN BEARING CAP MACHINING

AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2) One (1) dust collector rated at 30,000 ACFM for the removal of cast iron dust from the integrated machining operations. The contaminated air passes through water, forming a wet cast dust residual removed by a conveyor. The dust collectors will exhaust into the atmosphere at approximately 3,500 FT/SEC operating at 99.8% (Mfg. Rating) for particulate removal.

3 Materials to be produced are finished 4.6 liter main bearing caps used in automobile engine assembly. The main bearing caps are finished from rough stock by integrated automatic machining, washed, inspected and assembled into an automobile engine

4 Normal operating schedule
24 Hrs/Day 7 Days/Wk 52 Wks/yr

5 Process weight
4.6 liter Main Bearing Caps, as receive 8.25 lbs
4.6 liter Main Bearing Caps, volume/hr 546.5

8.25 X 546.5 = 4508.63 lbs/hr Cast Iron

6 None

7 See attached process sheet for flow of Cylinder Block machining

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of dust collection equipment will be utilized.

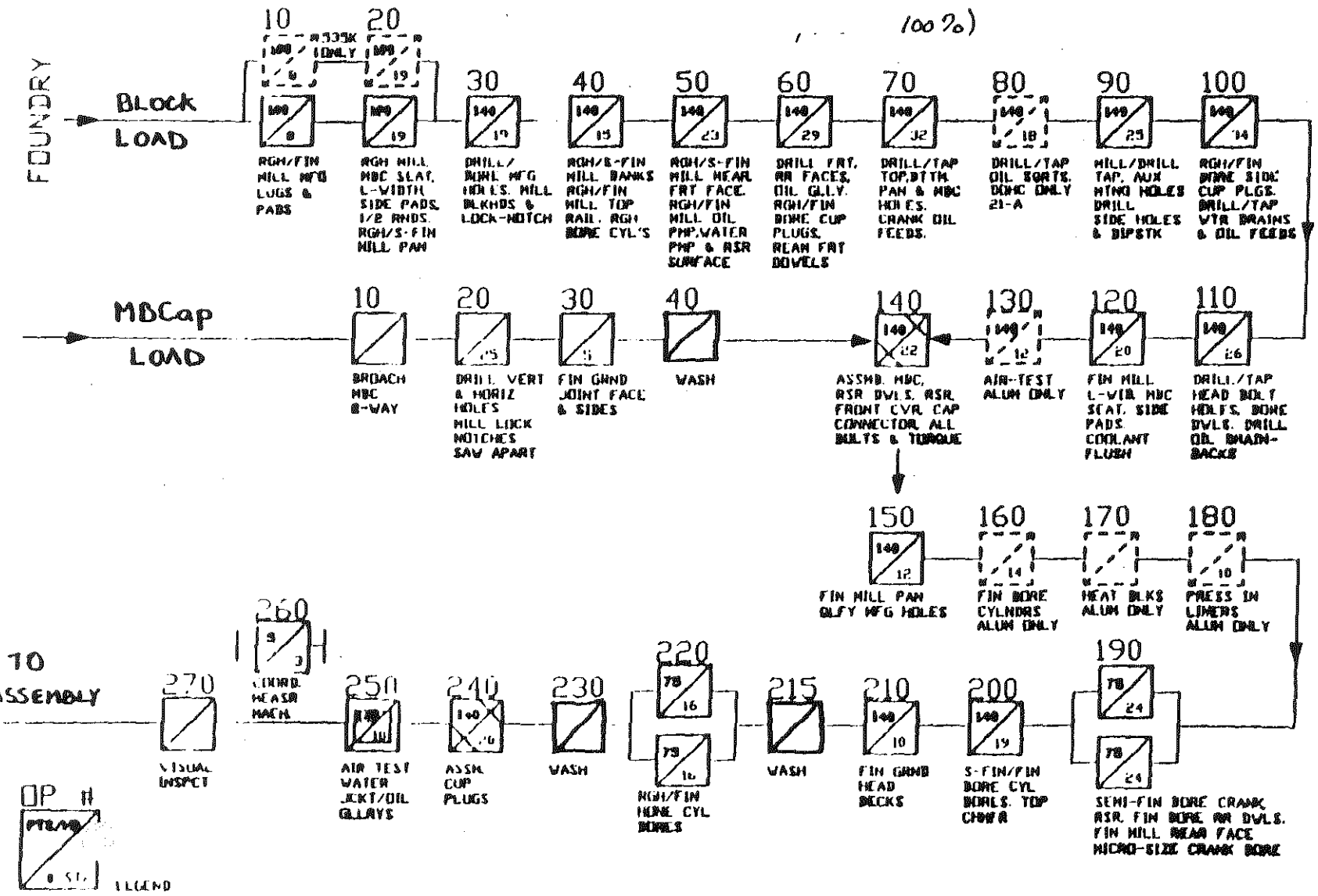
FOF CYLINDER BLOCK , AND MAIN BEARING CAP

JAN 8 1987

400,000 @ 81% (100 JPH GROSS)
535,000 @ 78% (140 JPH GROSS)

4.6L SOHC, PROTECT 535K (21 base)
IMPLEMENT DOHC (21-A)
IMPLEMENT 535K (21-B)
PROTECT 3.5L V/6 (21-C)
PROTECT FOR ALUM. BLOCK (21-D)

100 %)



4.6 LITER 8 CYLINDER ENGINE
CAMSHAFT MACHINING
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One 5,000 C.F.M. mist collector used to remove the mist generated from the machining of 4.6 liter camshafts and discharge it into the atmosphere at approximately 3000 Ft/min.

3 Materials to be produced are finished 4.6 liter camshafts used in automobile engine assembly. The canshafts are finished from rough stock by intigrated automatic machining.

4 Normal operating schedule
24 hrs/d 7 days/wk 52 wks/yr

5 Process weight
4.6 liter camshaft as received 4.5 lbs
4.6 liter camshaft, volume 262. Hr

4.5 X 262.3 = 1180 #/Hr

6 None

7 See attached process sheet for flow of camshaft machining

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of oil mist collection equipment will be utilized

Emission Rate:

Oil = 7.341 #/gal; .05 gal/hr. out; estimated 0.2 emitted.
Gal/hr. x % x #/gal x hr/day x day/wk x wk/yr = #/yr
0.05 x 0.002 x 7.431 x 24 x 7 x 52 =6.491721

$$\frac{6.491721}{2000} = 0.003245 \text{ TONS/YEAR}$$

AVJ/3.11.87/1(AA_CAM)

EXHAUST

The 4.6 liter 8 Cylinder Crankshaft machining process will use (1) air scrubbing dust collector of the wet impingement scrubber type vented to its own stack, with plant recirculation in the winter

Stack Type:	Round 40" I.D.
Height:	Above Roof 18'; Above ground 45_'
Exhaust Gas:	Temp. Ambient
	Volume 30,000 ACFM
	Velocity 3,500 FT/MIN

Particulate Emissions (Estimated)
30,000 ACFM UNIT

Inlet:	1.98 #/hr Particulate
Outlet	0.11 #/hr Particulate

Uncontrolled Particulate Emissions

Inlet #/Hr X HR/WK x WK/HR / #/TON

$$\frac{1.98 \times 168 \times 52}{2000} = 8.65 \text{ TPY}$$

Controlled Particulate Emissions

Outlet #/Hr X HR X WK WK/HR / TON

$$\frac{0.11 \times 168 \times 52}{2000} = 0.4804 \text{ TPY}$$

AVJ/3.10.87/1(AA_CRANK)

4.6 LITER 8 CYLINDER ENGINE
CYLINDER HEAD MACHINING

AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2) The cylinder head machining processes include drilling, milling and tapping. Soluble oil is used as the machining coolant. The coolant is sprayed on the cylinder head as it is machined. The oil mist collector is designed to remove the oil mist generated from these machining operations.

3 Materials to be produced are finished 4.6 liter aluminum engine heads used in automobile engine assembly. The cylinder heads are finished from rough stock by integrated automatic machining.

4 Normal
operating schedule
24 Hrs/Day 7 Days/Wk 52 Wks/yr

5 Process weight
4.6 liter Cylinder Head, as received:
25 lbs
4.6 liter Cylinder Head, volume/hr : 218.6

25 X 218.6 = 5465 lbs/hr

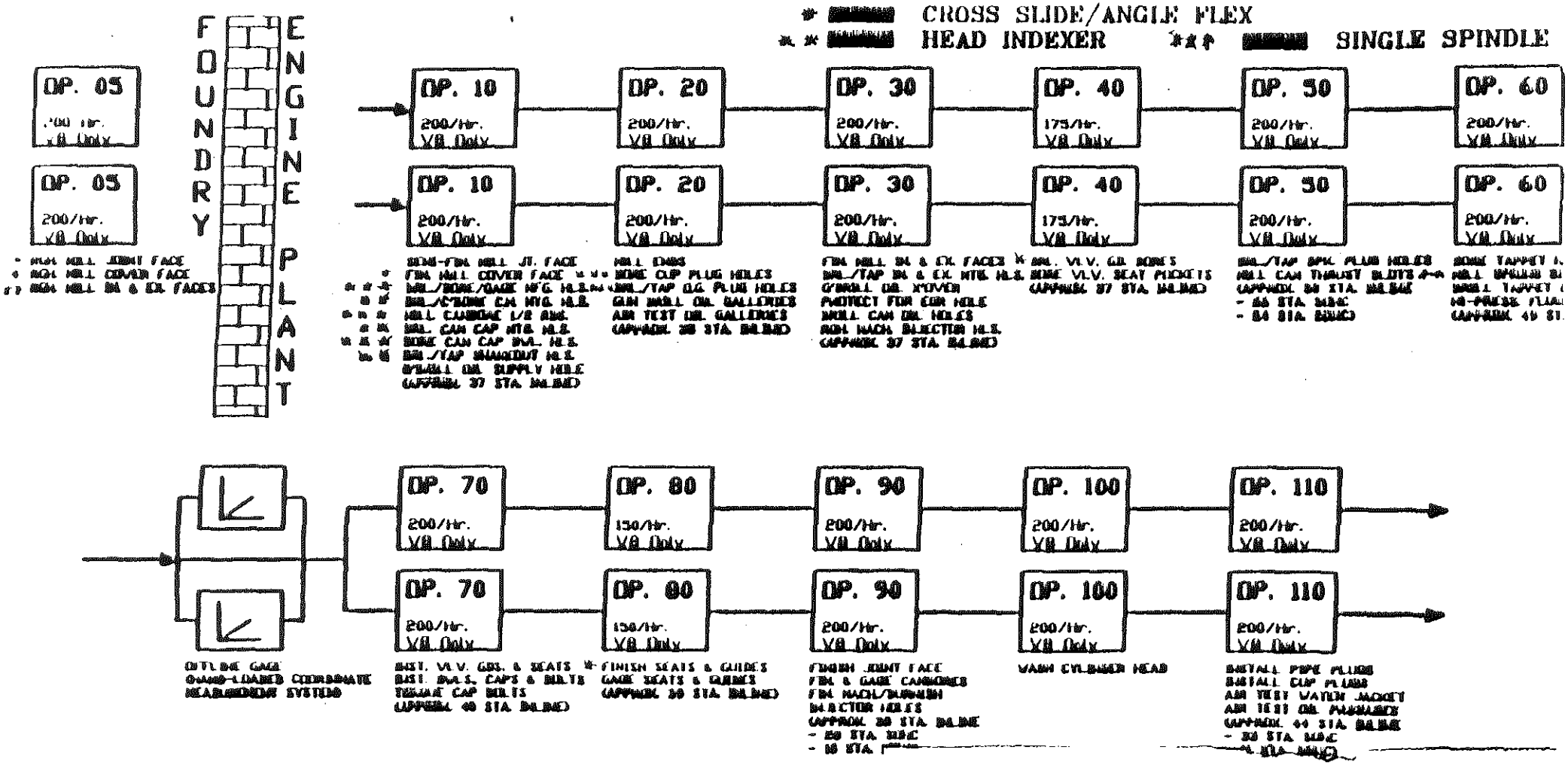
6 None

7 See attached process sheet for flow of Cylinder Head machining

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of dust collection equipment will be utilized.

Emission Rate
Oil = 7.341 #/gal; 0.5 gal/hr mist;;99.8% control efficienc
Gal/hr x % x #/gal x hr/day x day/wk x wk/yr = #/yr
0.5 x 0.002 x 8736 = 8.736 # mist/yr

CYLINDER HEAD



CYLINDER HEAD MACHINING

Study 21C

4.6L V8 - SOHC & DOHC

Protect for 3.5L SOHC (@ 400K Volume)

NOTE: NO PART DRAW AVAILABLE FOR STUDY

Supplement Appendix 'A'

Stack	Type (size)	Height Above Roof	Height Above Grade	Exit Temp (Deg. F)	Volume (ACFM)	Velosity (Ft/Min)
#1	10"	4 ft	29 ft	72	900	1,100
#2	2'3"	4 ft	29 ft	80	9200	2,275
#3	2'3"	4 ft	29 ft	80	9200	2,275
#4	7'3"	20'6"	45 ft	72	105,300	2,275

AVJ/3.11.87/1(HOT_TEST)

4.6 LITER 8 CYLINDER ENGINE
ENGINE DYNAMOMETERS
PROCESS

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2) Engine Dynamometer used to test assembled 4.6 liter engines

3 Materials are finished and assembled 4.6 Liter 8 Cylinder Engines. The engines are produced from integrated machining and assembly operations. The proposed process will include (3) 4,500 ACFM fans with incorporated spray chambers to cool engine gases.

4 Normal operating schedule
24 hrs/d 7 days/wk 52 wks/yr

5 Process weight
4.6 liter engine as received 333 lbs
4.6 liter engine, volume 200 tests/yr

333 X 200 = 66600 #/Hr

6 None

7 See attached process sheet for flow of camshaft machining

8 None

Emission Rate:

Estimated emissions will be less than 1 ton/yr of CO, H-C, NOx

AVJ/3.11.87/1(DYN_TEST)

4.6 LITER 8 CYLINDER ENGINE
MAINTENANCE REPAIR WELD BOOTH
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One welding booth constructed of sheet metal and angle iron complete with roof and roof stack for exhaust fan connection for ventilation and all associated welding equipment to weld repair for equipment maintenance purposes.

3 Materials to be repaired are various machine and automation parts.

4 Normal operating schedule
24 Hrs/Day 7 Days/Wk 52 Wks/yr

5 Process weight
Weld Rod (200/Yr) = .001 #/Hr

6 None

7 See attached process sheet for flow of misc. parts repair.

8 No air contaminant control equipment. The welding booth has a ventilation stack with no other sources vented to it.

Stack:
Type: Round 23''I.D.
Height: 18' Above roof 65' Above Ground
Exit Gas: Ambient
Volume: 10,000 ACFM
Velocity: 3,200 FT/MIN

Emission Rate:

.001 #/hr x 24 hrs/day x 7 days/wk x 52 wks/yr 8.736 #/yr

$$\frac{8.736}{2000\ \#/ton} = 0.004368\ tons/yr$$

AVJ/3.11.87/1(MAINT_WELD)

4.6 LITER 8 CYLINDER ENGINE
CUTTER GRIND
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One 10,000 C.F.M. WET IMPINGEMENT collector used to remove the dust generated from the grinding of tools used in the machining of 4.6 liter production parts and discharge it into the atmosphere at approximately 3000 Ft/min.

3 Materials to be produced are tool sharpening for the manufacturing of finished 4.6 production parts used in automobile engine assembly.

4 Normal operating schedule
24 hrs/day 7 days/wk 52 wks/yr

5 Process weight
average tool weight 0.5 lbs
tool grinding volume 4 /hr

0.5 X 4 = 2 #/Hr

6 None

7 See attached process sheet

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of dust collection equipment will be utilized.

Emission Rate:

dust = 190 #/cu ft; .05 #/hr. mist generated; estimated 0.2% emitted.

0.05 #/hr x 0.002 % x 24 hrs/day x 7 day/wk x 52 wks/yr =0.87 #/ yr

$$\frac{0.87}{2000} = 0.0004 \text{ TONS/YEAR}$$

AVJ/3.11.87/1(CUTTER)

4.6 LITER 8 CYLINDER ENGINE
MAINTENANCE/TOOLROOM
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One 10,000 C.F.M. WET IMPINGMENT collector used to remove the dust generated from the maintenance and modification of tools,fixtures and misc equipment used in the machining of 4.6 liter production parts and discharge it into the atmosphere at approximately 3000 Ft/min.

3 Materials to be produced are fixture modifications,tool modifications and maintenance of equipment for the manufacturing of finished 4.6 production parts used in automobile engine assembly.

4 Normal operating schedule
24 hrs/d 7 days/wk 52 wks/yr

5 Process weight
averag tool/fixture weight 5 lbs
tool repair/modification volume 1 /hr

5 X 1 = 5 #/Hr

6 None

7 See attached process sheet

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of dust collection equipment will be utilized.

Emission Rate:

dust = 190 #/cu ft; .02 #/hr. out; estimated 0.2% emitted.
#/hr. x % x hr/day x day/wk x wk/yr = #/yr
0.02 x 0.002 x 24 x 7 x 52 = 0.34944

$$\frac{0.34944}{2000} = 0.000174 \text{ TONS/YEAR}$$

AVJ/3.11.87/1(maint)

4.6 LITER 8 CYLINDER ENGINE
PRODUCTION REPAIR BOOTH
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One welding booth constructed of sheet metal and angle iro complete with roof and roof stack for exhaust fan connecti forventilation and all associated welding equipment to wel repair 4.6 liter engine parts.

3 Materials to be produced are finished 4.6 liter aluminum e parts used in automobile engine assembly. The engine part finished from rough stock by integrated automatic machinin Damaged parts are repaired by welding and sent to the engi assembly line to be used in an automobile engine assembly

4 Normal operating schedule
25 Hrs/Day 7 Days/Wk 52 Wks/yr

5 Process weight
4.6 liter Cylinder Head, as receive 28
4.6 liter Cylinder Head, volume/hr 20

28 X 20 = 560 lbs/hr Cast Iron
Weld Rod (600/Yr) = .003 #/Hr

6 None

7 See attached process sheet for flow of misc. parts repair.

8 No air contaminant control equipment. THe welding booth ha ventilation stack with no other sources vented to it.

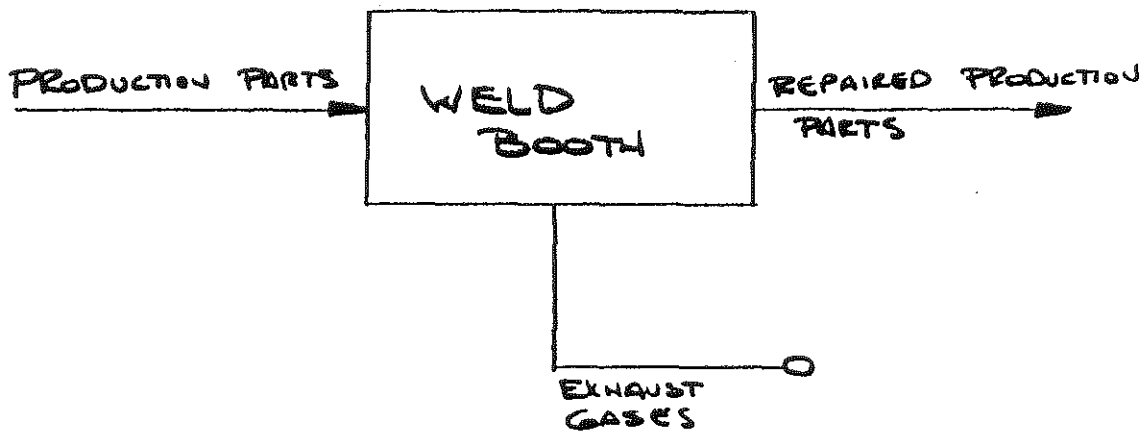
Stack:
Type: Round 23''I.D.
Height: 18' Above roof 65' Above Ground
Exit Gas: 80 oF
Volume: 10,000 ACFM
Velocity: 3,200 FT/MIN

Emission Rate

.003 #/hr x 24 hrs/day x 7 days/wk x 52 wks/yr 26.208

$$\frac{26.208}{2000\ \#/\text{ton}} = 0.013104\ \text{tons/yr}$$

AVJ/3.11.87/1(WELD)



MANUFACTURING PROC. SCH.
4.6 LITER PLANT
PRODUCTION REPAIR BOOTH

4.6 L CAMSHAFT
(HOLLOW CAST STEEL)

STUDY 21 C
ALTERNATE

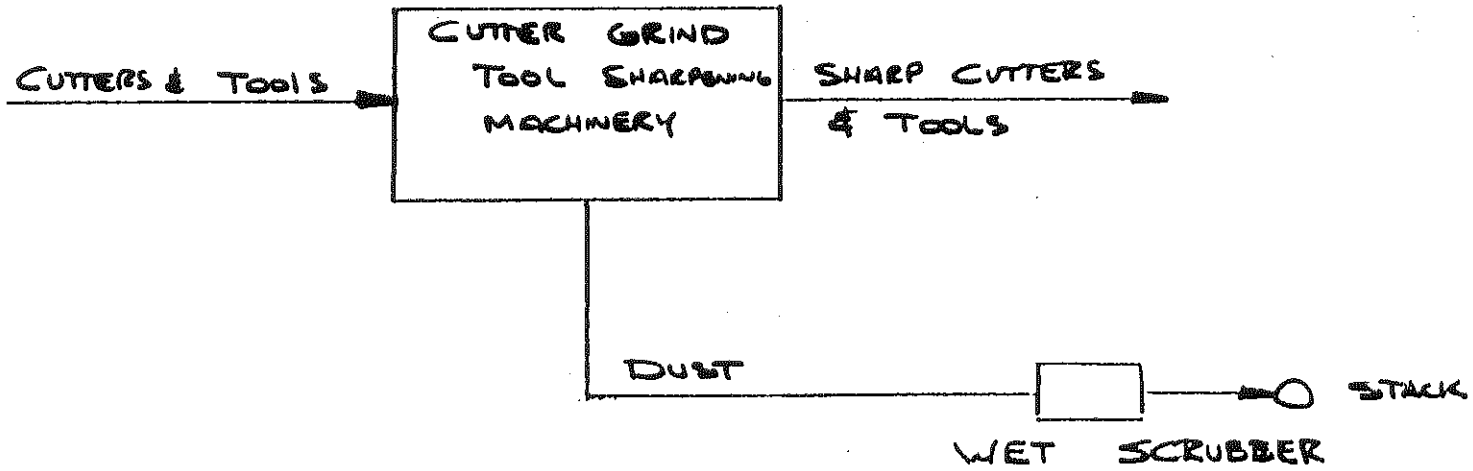
IMPLEMENT 535,000 VOLUME
PROTECT FOR 400,00 3.5L V6

Step	Machines	Pieces	Description
10	3	150	HOLLOW MILL ENDS, CENTER DRILL & TAP MTG HLS, DRILL & REAM MFG HOLE
20	3	120	TURN BROACH JOURNAL DIAS. GROOVE BETWEEN LOBES
30	3	109	MILL LOBE PROFILE.
35	3	120	DEBURR FLUSH AND BLOW-OFF
40	5	69	INDUCTION HARDEN LOBES.
50	1	350	TEMPER LOBES
60	4	100	SPACE FOR 2 MACHINES FINISH GRIND JOURNALS.
65	3	150	SPACE FOR 2 MACHINES CHECK JOURNALS.
70	24	13	FINISH GRIND LOBE PROFILE
72	1	10	MAGNAFLUX CAMS
75	3	150	CHECK LOBE PROFILE
77	1	350	FLUSH AND BLOW-OFF
80	3	150	MICROFINISH JOURNALS & LOBES
90	1	350	WASHER
100	1	350	OIL CAMS

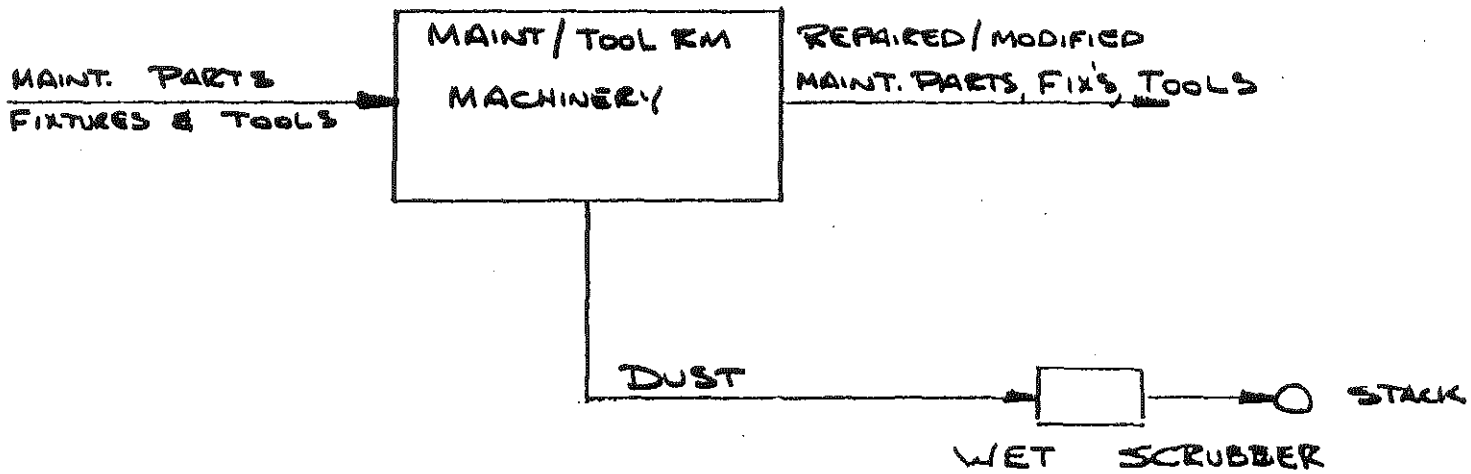
LEGEND

NO. MACHINES

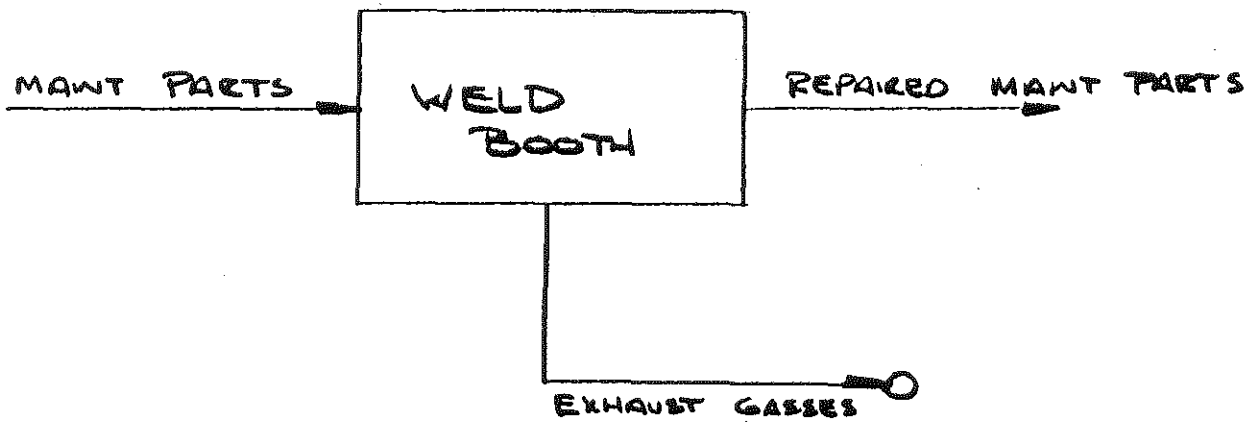
PCS/HR @ 100% PER MACHINE



MANUFACTURING PROCESS SCH.
4.6 LITER PLT
CUTTER GRIND



MANUFACTURING PROCESS SCH.
4.6 LITER PLT

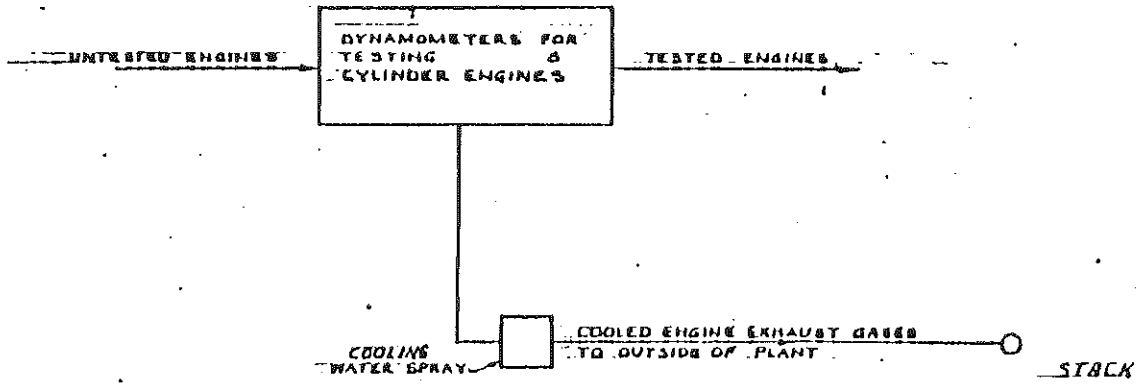


MANUFACTURING PROC SCH.
4.6 LITER PLANT
MAINT REPAIR WELD BOOTH

SHEET NO.
DRAWING NUMBER

REV.	DATE	BY	DESCRIPTION

Revised



TYPICAL SYSTEM

ITEM	QUAN	MATERIAL	DESCRIPTION

ASSIGNMENT NO | PROJECT NO

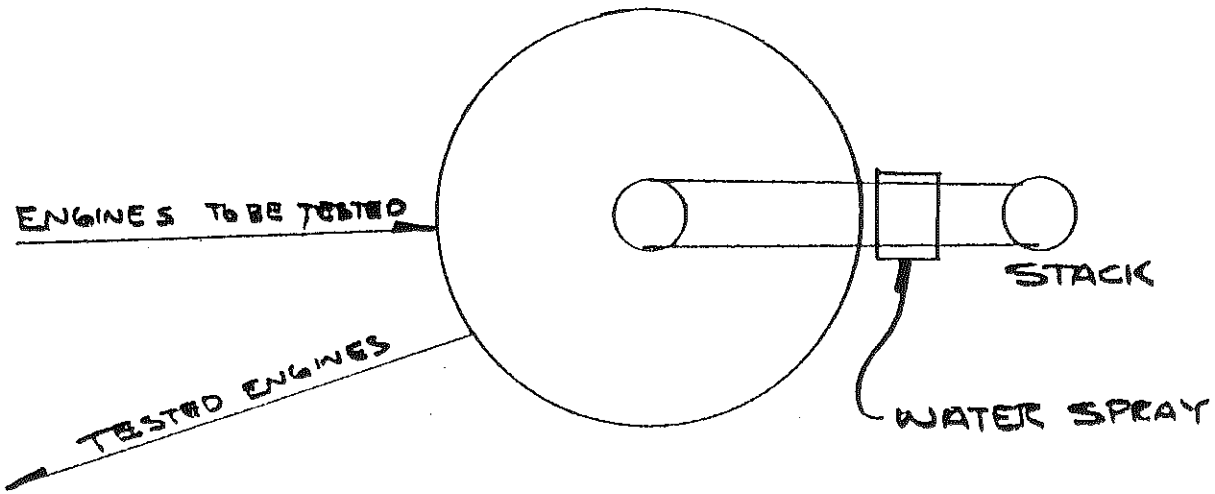
TITLE MANUFACTURING PROCESS SCHEMATICS

DYNAMOMETER # 1, 2, 3, FOR 8 CYLINDER ENGINES

SCALE NONE	CH'K'D BY	DRAWING NUMBER
DES BY	APP'D	
DR. BY V P	DATE [illegible]	SHEET NO.

FORD MOTOR COMPANY
PLANT ENGINEERING

DIVISION
PLANT
LOCATION



MANUFACTURING PROCESS SCH.
A.G.L. ENGINE PLANT
HOT TEST SYSTEM

4.6 LITER 8 CYLINDER ENGINE
HOT TEST STANDS
PROCESS

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2) Engine Test Stands used to test run assembled 4.6 liter engines

3 Materials are finished and assembled 4.6 Liter 8 Cylinder Engines. The engines are produced from integrated machining and assembly operations. The proposed source will include one (1) 68,8000 ACFM fa one (1) 600 ACFM fan and two (2) 6,000 ACFM fan units to remove exhaust. Engine turntable exhaust one (1) 68,000 CFM and one (1) 6,000 CFM will exhaust to ambient without controls while the engine exhaust units one (1) 6,000 ACFM and one (1) 600 ACFM will incorporat a spray chamber to cool engine gases.

4 Normal operating schedule
24 hrs/day 7 days/wk 52 wks/yr

5 Process weight
4.6 liter engine as received 333 lbs
4.6 liter engine, volume 109. Hr

333 X 109.3 = 36396.9 #/Hr

6 None

7 See attached process sheet for flow of hot test machining

8 None

Emission Rate:

Estimated emissions will be less than 1 ton/yr of CO, H-C, NOx

EXHAUST

Stack Type: Round 40" I.D.
Height: Above Roof 18'; Above grade 45_'
Exhaust Gas: Temp. Ambient
Volume 40,000 ACFM
Velocity 3,500FT/MIN

Emissions

40,000 ACFM
Inlet: 2 #/hr ParticulatOutlet: 0.005 Particulate #/Hr

Uncontrolled Emissions

Inlet #/Hr X HR X WK WK/YR

TON

40,000 ACFM

$$\frac{2 \times 168 \times 52}{2000} = 8.7360 \text{ Tons/Yr Collector}$$

Cylinder Head Dept.: Tons/Yr/Collector

4 Collectors

8.74 X 4 = 34.9440
34.944 = TONS/YR-( ) Collectors Cylinder Block De

Controlled Emissions (Per Collector)

Outlet #/Hr X HR X WK WK/HR

TON

40,000 ACFM

$$\frac{0.005 \times 168 \times 52}{2000} = 0.0218 \text{ Tons/Yr Collector}$$

0.02 X 4 = 0.0874
0.08736 = TONS/YR-(4) Collectors Cylinder Block De

AVJ/2.28.87/1(AA_CYLHD)

EXHAUST
The 4.6 liter 8 Cylinder Crankshaft machining process will use (1) air scrubbing dust collector of the wet impingement scrubber type vented to its own stack, with plant recirculation in the winter

Stack Type: Round 40" I.D.
Height: Above Roof 18'; Above ground 45_'
Exhaust Gas: Temp. Ambient
Volume 30,000 ACFM
Velocity 3,500 FT/MIN

Particulate Emissions (Estimated)
30,000 ACFM UNIT
Inlet: 1.98 #/hr Particulate
Outlet 0.11 #/hr Particulate

Uncontrolled Particulate Emissions

Inlet #/Hr X HR/WK x WK/HR

#/TON

$$\frac{1.98 \times 168 \times 52}{2000} = 8.65 \text{ TPY}$$

Controlled Particulate Emissions

Outlet #/Hr X HR X WK WK/HR

TON

$$\frac{0.11 \times 168 \times 52}{2000} = 0.4804 \text{ TPY}$$

AVJ/3.10.87/1(AA_CRANK)

4.6 LITER 8 CYLINDER ENGINE
CRANKSHAFT MACHINING
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One wet air scrubbing dust collectors for removal of cast iron dust proposed dust collectors will be 30,000 ACFM and will exhaust into the atmosphere operating at about 98% efficiency for particulate removal.

3 The 8 cylinder Crankshafts are finished from rough stock by automatic machines and equipment consisting of (6) turning, (4) drilling, (11) grinding (1) balancing (1) fillet, rolling and polishing to finish machining the 4.6 liter Crankshafts to be used in automobile engine assembly.

4 Normal operating schedule
24 Hrs/D 7 Days/Wk 52 Wks/yr

5 Process weight

4.6 liter Crankshafts as received 43.2
4.6 liter Crankshafts, volume 109.3 Hr
43.2 X 109. = 4721.76 #/Hr Cast Iron

6 None

7 See attached process sheet for flow of Crankshaft machining

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of dust collection equipment will be utilized.

EXHAUST
The 4.6 liter main bearing cap machining process will use (1) air scrubbing dust collector of the impingement scrubber vented to its own stack, with plant recirculation in the winter.

Stack Type: Round 40" I.D.
Height: Above Roof 18'; Above grade 45'
Exhaust Gas: Temp. Ambient
Volume 30,000 ACFM
Velocity 3,500 FT/MIN

Particulate Emissions

30,000 ACFM UNIT
Inlet: 2 #/hr Particulate
Outlet:0.11 Particulate #/Hr

Uncontrolled Particulate Emissions

Inlet #/Hr X HR/WK x WK/YR

#/TON

40,000 ACFM

$$\frac{2 \times 168 \times 52}{2000} = 8.74 \text{ TPY/collector}$$

Main Bearing Cap Dept.: Tons/Yr/Collector

1 Collectors

8.74 X 1 = 8.736
8.736 = TONS/YR
Tons/Yr
Uncontrolled

Controlled Emissions (Per Collector)

Outlet #/Hr X HR/WK x WK/YR

#/TON

30,000 ACFM

$$\frac{0.11 \times 168 \times 52}{2000} = 0.48 \text{ Tons/Yr Collector Controlled}$$

AVJ/3.11.87/1(AA_MAINBC)

Controlled Emissions (Per Collector)

Outlet #/Hr X HR/WK x WK/YR

#/TON

30,000 ACFM UNIT

$$\frac{0.0040 \times 168 \times 52}{2000.00} = 0.02 \text{ TPY/collector}$$

0.0175 x (3) Collectors= 0.05 TPY @ 30,000 ACFM

25,000 ACFM UNIT

$$\frac{0.0030 \times 168.00 \times 52.00}{2000.00} = 0.01 \text{ TPY/collector}$$

0.0131 x (1) Collectors= 0.01 TPY @ 25,000 ACFM

TOTAL PARTICULATES
Uncontrolled

8.6486 x (3) Collectors= 25.946 TPY @ 30,000 ACFM
7.2072 x (1) Collectors= 7.207 TPY @ 25,000 ACFM

Controlled

0.0175 x (3) Collectors= 0.052 TPY @ 30,000 ACFM
0.0131 x (1) Collectors= 0.013 TPY @ 25,000 ACFM

AVJ/3.10.87/1(AA_CYLBL)

4.6 LITER 8 CYLINDER ENGINE
CYLINDER BLOCK MACHINING
AIR POLLUTION CONTROL EQUIPMENT

1 Attached a) Site Plan 1 of 1
b) Plant layout 1 of 1

2 One lot of (4) dust collectors of which (3) are rates at 30,000 ACFM and (1) rated at 25,000 ACFM, each for the removal of cast iron dust from the integrated machining operations. The contaminated air passes through water, forming a wet cast dust residual removed by a conveyor for solid waste disposal. The dust collectors will exhaust into the atmosphere at approximately 3,500 FT/SEC operating at 99.8% (Mfg. Rating) for particulate removal.

3 One lot of integrated automatic machines and equipment consisting of (11) mills, (7) drills, (3) bores, (2) tappers, (2) hones, (1) gage, (2) washers and misc. automation. Materials to be produced are finished 4.6 liter engine blocks used in automobile engine assembly.

4 Normal operating schedule
24 Hrs/Day 7 Days/Wk 52 Wks/yr

5 Process weight

4.6 liter Cast Iron Cylinder Block, reveived: 158 lbs
4.6 liter Cast Iron Cylinder Blocks, units/hr 87 /hr

158 lbs x 87.44 /hr = 13816 lbs/hr Cast Iron

6 None

7 See attached process sheet for flow of Cylinder Block machining

8 Not available at this time, however, it is anticipated that air scrubbing dust collectors similar to the attached manufacturers catalog description of dust collection equipment will be utilized.

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

ESTABLISHMENT: FORD - ROMEO TRACTOR PLANT	COUNTY: Macomb	ESTABLISHMENT NO.: B-2869
ESTABLISHMENT LOCATION: 701 E. 32 Mile Road	DISTRICT: Northville	DATE: MM 08 DD 19 YY 86
CITY / TOWNSHIP: Romeo	STAFF: T.Maki	TRAVEL TIME: 2.0
CONTACT AND TITLE: Linda Gamble, Ken Jenkins, Don Hinckfoot		TIME ON ACTIVITY: 4.0

ACTIVITY:

- ☐ COMPLAINT RECEIVED
- ☐ COMPLAINT INVESTIGATION
- ☐ PARTIAL SCHEDULED INVESTIGATION
- ☒ COMPLETE SCHEDULED INVESTIGATION
- ☐ SELF-INITIATED INVESTIGATION
- ☐ CONSENT ORDER INVESTIGATION
- ☐ SOURCE TEST MONITORING
- ☐ VISIBLE EMISSIONS OBSERVATION
- ☐ SAMPLE COLLECTED
- ☐ PHOTOS TAKEN
- ☐ MEETING WITH COMPANY
- ☐ TELEPHONE CONVERSATION
- ☐ LETTER
- ☐ OTHER

MAJOR SOURCE: ☒ A-1 ☐ A-2 ☐ NESHAP ☐ NSPS ☐ CEM ☐ PSD

LEVEL OF INSPECTION: ☐ LEVEL I ☒ LEVEL II ☐ LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL	PERMIT / RULE / ORDER	STATUS
Painting Operations (High Solids Paint Conversions)	Rule 621 C.O. SIP #3-1985 Permits: 290-73A 358-81A 1036-78A 625-80A	C (with increments)

On August 19th, I conducted an annual investigation of the Ford Romeo Tractor Plant. My contacts were Linda Gamble of the Ford SSECO staff, Ken Jenkins, and Don Hinckfoot.

Our primary area of interest at the Ford Romeo plant is their compliance program for Rule 621, Miscellaneous Metal Parts Painting, as incorporated into the Consent Order SIP #3-1985. The company is converting to high solids paints & their various lines are covered under Permits #290-73A, 358-81A, 1036-78A, & 625-80A.

The Consent Order covers both standard & specialty colors. All lines are scheduled to meet their final compliance limits by December 31, 1986. I have been reviewing the quarterly reports submitted by the company under the Consent Order & some operations have already attained compliance. Ken Jenkins indicated that they expect no problems in meeting final compliance of all operations by 12-31-86. The company had initially attempted to obtain their paints from the Ford-Mt.Clemens Paint plant. However, they were not able to provide a satisfactory paint which met the required VOC emission limits. The tractor plant paint is now supplied by PPG.

Mr. Hinckfoot said that their production people are also pleased with the paint finish they are obtaining with the high solids paint. The painters needed training when first using the high solids paints to avoid applying too thick a film. Mr. Hinckfoot said that paint bake times are equivalent to the older high VOC paints.

(continued on sheet #2)

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME: Thomas Maki DATE OF REPORT: 8/20/86 SUPERVISOR'S INITIALS:

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

R5642
Rev. 5/85

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT (Continued)

ESTABLISHMENT FORD - ROMEO TRACTOR PLANT	COUNTY Macomb	ESTABLISHMENT NO. B-2869
ESTABLISHMENT LOCATION 701 E. 32 Mile Road	DISTRICT Northville	DATE MM DD YY 08/ 19/ 86
CITY / TOWNSHIP Romeo	STAFF T.Maki	

INSPECTION RESULTS/REMARKS:

We also inspected the boilerhouse. They have three 60,000 pph gas/oil fired boilers. Two boilers were installed under Permit #67-73, & one under Permit #393-74. These two permits authorized the company to burn either gas or #2 fuel oil in all of the boilers. Today, one boiler was in operation, burning natural gas & producing about 30,000 pph steam.

At this time, Ford Romeo Tractor plant is in compliance with the increments of progress required under their Consent Order & the four permits listed above covering their painting operations.

Mr. Jenkins said that there has been a merger of the Ford Tractor Division with New Holland Equipment Co. & the result is a wholly owned subsidiary of the Ford Motor Co. called Ford New Holland.

TM/sh

(B)

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

R5642-1
Rev. 5/85

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [x] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

(Page #1 of 2)

ESTABLISHMENT: FORD MOTOR COMPANY - TRACTOR & EQUIPMENT PLANT	NO. B-2869	DATE MM/DD/YY: 09-24-84	
		QUARTER	NO. 03
NUMBER AND STREET: 701 E. 32 Mile Road	CITY: Romeo	STAFF: D.Yanochko	NO. 68
CONTACT: Ken Jenkins & Joe Moosekien	TITLE	COUNTY: Macomb	NO. 50
PRIMARY ACTIVITY: Tractor & Equipment Assembly		DISTRICT: Northville	NO. 03

REMARKS:

Performed routine annual inspection at Ford Romeo Tractor and Equipment Plant.

No recent complaints have been received regarding this plant. No visible emissions or odor were noted down wind of the plant prior to the inspection. Draft #2 of a delayed compliance order for Rule 621 was sent to the company on September 11, 1984. Collected the following data on the company's painting operations to assist in the possible determination of baseline transfer efficiencies.

The hydraulic cylinder booth (SID006) utilizes an automatic air atomized electrostatic application system. Application pressure ranges from 160 to 170 psi. The electrostatic system generates 25 microamps (D.C.) and 100 killovolts. A photo cell system is used to activate the spray guns depending on varying cylinder lengths.

The industrial tractor repair booth (SID007) utilizes a manual air atomized application system. Application pressures of 40 to 90 PSI were noted. Filters in the booth are changed twice per shift.

The small parts booth (SID008) and the straddle mount chassis booth (SID009) both utilize manual airless application equipment. Application pressures of 1200 PSI

(continued)

PROJECT

01 MAJOR SOURCE
02 MINOR SOURCE
03 RESIDENCE
04 MEETING – CONFERENCE
05 TRAINING
07
08
09
10
00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
09		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
00 OTHER (explain)		

COMPLIANCE STATUS

A. IN COMPLIANCE
B. UNKNOWN COMPLIANCE
C. OUT OF COMPLIANCE NOT ON A SCHEDULE
D. ON A SCHEDULE MEETING INCREMENTS
E. ON A SCHEDULE, NOT MEETING INCREMENTS
F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

R5642
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DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [x] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

(Page #2 of 2)

ESTABLISHMENT: Ford Motor Company - Tractor & Equipment Plant	NO. B-2869	DATE MM/DD/YY: 09-24-84	
		QUARTER	NO. 03
NUMBER AND STREET	CITY: Romeo	STAFF: D.Yanochko	NO. 68
CONTACT	TITLE	COUNTY: Macomb	NO. 50
PRIMARY ACTIVITY		DISTRICT: Northville	NO. 03

REMARKS:

were noted for both systems. Both booths are equipped with down draft type particulate control systems.

The agricultural tractor repair booth (SID010) utilizes manual air atomized application equipment. Application pressures ranging from 50 to 70 PSI were noted. The booth is equipped with dry filter particulate control systems. Filters are changed once per day. Company personnel were unable to explain a "Danger - Lead" sign on this booth.

The flat deck chassis booth (SID011) is equipped with manual airless application equipment. Application pressures of 1600 to 1700 PSI were noted. The booth is equipped with a down draft type particulate control system.

The touch up booth (SID012) is equipped with a manual air atomized application system. Application pressures of 75 to 80 PSI were noted.

All water wash and dry filter particulate control systems were in good condition at the time of the inspection. All filters were properly installed with the exception of one small gap in the hydraulic cylinder booth.

DY/sh

PROJECT

01 MAJOR SOURCE
02 MINOR SOURCE
03 RESIDENCE
04 MEETING – CONFERENCE
05 TRAINING
07
08
09
10
00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
09		
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16		
17		
18		
19		
00 OTHER (explain)		

COMPLIANCE STATUS

A. IN COMPLIANCE
B. UNKNOWN COMPLIANCE
C. OUT OF COMPLIANCE NOT ON A SCHEDULE
D. ON A SCHEDULE MEETING INCREMENTS
E. ON A SCHEDULE, NOT MEETING INCREMENTS
F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

D

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PROG. G/629/55
DEPT. OF NATURAL RESOURCES
AIR QUALITY DIVISION

REPORT OF ANNUAL INVESTIGATIONS

Call Frank 322-1228

PAGE

PRODUCED 2/22/8

FORD ROMEO TRACTOR&EQUIP PLT
FORD MOTOR CO
TRACTOR MFG & ASSEMBLY
701 E 32 MILE RD
ROMEO 48065
~~D-M-ALEXANDER~~
R.W. Alfred

DISTRICT NO. 03
COUNTY 50 MACOMB
ESTAB. NO. B2869
313 7526551

STAFF Yanochko
CONTACT Ken Jenkins, Joe Mooseklian
TOTAL TIME, HOURS
PROJECTED TIME, HOURS

NO. 68
DATE 9/24/84

FQY	SID	ECODE	---- SOURCE NAME ----	PIECES	AVG.-HOURLY-RATE	---------- CONTROLS ----------	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
	001	0018	#1 BOILER SN98660	1	77.80 MMBT			.53	.03
	002	0018	#2 BOILER SN 98861	1	77.80 MMBT			.53	.03
	003	0018	1 BRYAN WATER HEATER	1	1.90 MMBT			.02	
	004	0018	2 BRYAN WATER HEATER	1	1.75 MMBT			.02	
	005	1275	METHYL CHLOROFORM	1	.07 GALS				
00.5	006	1083	HYD CYLINDER BOOTH	1	.88 GALS	FAB-FILTR		.04	
00.5	007	1085	IND TRACTOR RPR BTH	1	1.60 GALS	FAB-FILTR		.08	
00.5	008	1084	SMALL PARTS BTH/OVEN	1	15.20 GALS	WET BAFFL	50.00	.38	
00.5	009	1084	STRDL MNT CHASSIS B/	1	8.80 GALS	WET BAFFL	50.00	.22	
00.5	010	1085	AG TRACTOR RPR BTH	1	2.08 GALS	FAB-FILTR	80.00	.02	
00.5	011	1085	FLATDECK CHASSIS BTH	1	8.00 GALS	WET BAFFL	50.00	.20	
00.5	012	1085	TOUCH UP BOOTH	1	.36 GALS	FAB-FILTR		.02	
	013	0018	#3 BOILER S/N 99011	1	77.80 MMBT			.53	.03
	015	0068	SHOT BLAST UNIT	1	.04 TONS	FAB-FILTR			
01.0	016	0079	ENGINE TEST STANDS	1	.67 GALS				
	017	1190	GASOLINE TANK 10K	1	1.91 GALS				
	018	0064	WELDING	1	75.01 LBS.				
	019	0560	CARPENTRY SHOP	1	TONS	FAB-FILTR			
	020	0060	GRINDERS ETC	1	TONS	SET-CHAM			
00.5	021	1085	MOD BLDG REPAIR BTH	1	.10 GALS	FAB-FILTR		.01	
	022	0067	BLUE PRINT MACHINES	2	3.20 GALS				

Boiler #2
35,000 lbs/hr
120,000 peak winter load
excess O2 - 2.5 % in stack
just prior to preheater

011-Flat Deck Chassis
- psi
1600-1700°
high solids
this booth
airless atomization

006 Hydraulic cylinder
air atom
electrostatic
1.8-170
5-9 psi
air/paint
micro avg (x) kVolts
25 100
~~25~~ 75
~~25~~ 100
~~30~~
photocell turns on re

010 Ag Repair
filters once/day
50-75 psi
air atom
lead sign?

extension on small parts for paint

small parts & straddle both are less 1200 psi

012 Touch up booth
75-80 psi
air atom

007 Industrial Trac Repair
fan not in operation
filters being changed - 2/shift
high pressure 40-90 psi?
air atom

DUE 9-30-84

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42 -Page 1-

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [ ] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

		DATE MM/DD/YY: 5/18/83	
ESTABLISHMENT: Ford Romeo Tractor & Equipment Plant	NO.: B-2869	QUARTER:	NO.: 02
NUMBER AND STREET: 32 Mile Road	CITY: Romeo	STAFF: DMY Yanochko	NO.: 68
CONTACT: Chris Porter	TITLE: SSECO	COUNTY: Macomb	NO.: 50
PRIMARY ACTIVITY: Tractor and Equipment Manufacturing and Assembly		DISTRICT: Pontiac	NO.: 03

REMARKS:

Bob Irvine, Roy Etalamaki (AQD Lansing SIP Unit), Tom Hess and myself met with Dave Alexander, Ken Jenkins, Don Hinckfoot of Romeo Plant Engineering and Chris Porter of SSECO to discuss the company's proposed program for compliance with Rule 621. The company has proposed a program which would extend final compliance until December, 1985 with some interim emissions reductions in the meantime. The limit would be met by a combination of paint reformulation to high solids and increasing the transfer efficiencies by converting to airless electrostatic applications. They would also like their tractor paint repair operations to be included in the 4.8 lbs.VOC per gallon of coating, emission rate set for truck final repair in Section 1(d) of the rule.

The plant is currently producing 70 agricultural and 20 industrial tractors per day. Their 1982 production was approximately 12,000 units; 1983 production is projected at 17,000 units. Paint usage volumes submitted by the company in its 3/10/83 letter are for the year 1979. Production peaked that year at 42,264 units. According to Mr. Hinckfoot, paint applications average approximately 2.5 gallons per tractor.

PROJECT

- 01 MAJOR SOURCE
- 02 MINOR SOURCE
- 03 RESIDENCE
- 04 MEETING – CONFERENCE
- 05 TRAINING
- 07
- 08
- 09
- 10
- 00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
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19		
00 OTHER (explain)		

COMPLIANCE STATUS

- A. IN COMPLIANCE
- B. UNKNOWN COMPLIANCE
- C. OUT OF COMPLIANCE NOT ON A SCHEDULE
- D. ON A SCHEDULE MEETING INCREMENTS
- E. ON A SCHEDULE, NOT MEETING INCREMENTS
- F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

(B)

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DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42 -Page 2-

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [ ] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

		DATE MM/DD/YY: 5/18/83	
ESTABLISHMENT: Ford Romeo Tractor & Equipment Plant	NO.: B-2869	QUARTER:	NO.: 02
NUMBER AND STREET: 32 Mile Road	CITY: Romeo	STAFF: DMY Yanochko	NO.: 68
CONTACT: Chris Porter	TITLE: SSECO	COUNTY: Macomb	NO.: 50
PRIMARY ACTIVITY:		DISTRICT: Pontiac	NO.: 03

REMARKS:

The company's eight painting operations were all observed during this visit. The company submitted information on paint usage on each line in its 3/10/83 letter. The totals shown in that letter include approximately 100 specialty colors, most with usage amounting to less than 15 gallons per year. They question whether these low use colors need to be reformulated under the rule. Bob Irvine felt that if the company only painted a couple of units per day with these colors and a 24 hour averaging period was used to determine average VOC content, there would not be a problem.

In regard to the company's request for inclusion of tractor repair painting operations with the higher VOC content value given in Section 1(d) of the rule for truck repair operations, the company stated that most truck repair operations use acrylic paints for better gloss and hardness characteristics. They use an alkyd enamel except for some acrylic blue paint used on the flat deck chassis line. Irvine felt tractor repair was similar enough to truck repair to possibly be included in that category.

The main reason why the company feels they cannot meet the December 31, 1983 compliance deadline appears to be the "wet on wet" application process used for prime

PROJECT

01 MAJOR SOURCE
02 MINOR SOURCE
03 RESIDENCE
04 MEETING – CONFERENCE
05 TRAINING
07
08
09
10
00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
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14		
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16		
17		
18		
19		
00 OTHER (explain)		

COMPLIANCE STATUS

A. IN COMPLIANCE
B. UNKNOWN COMPLIANCE
C. OUT OF COMPLIANCE NOT ON A SCHEDULE
D. ON A SCHEDULE MEETING INCREMENTS
E. ON A SCHEDULE, NOT MEETING INCREMENTS
F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

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DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

ESTABLISHMENT	COUNTY	ESTABLISHMENT NO.
FORD MOTOR COMPANY - Romeo Tractor	Macomb	B-2669
ESTABLISHMENT LOCATION: 701 S. 32 Mile Road	DISTRICT: Northville	DATE MM DD YY: 09 / 13 / 85
CITY / TOWNSHIP: Romeo, MI 48065	STAFF: T. Maki	TRAVEL TIME: 2.0
CONTACT AND TITLE: [illegible]		TIME ON ACTIVITY: 3.0

ACTIVITY:

- ☐ COMPLAINT RECEIVED _____
- ☐ COMPLAINT INVESTIGATION _____
- ☐ PARTIAL SCHEDULED INVESTIGATION
- ☒ COMPLETE SCHEDULED INVESTIGATION
- ☐ SELF-INITIATED INVESTIGATION
- ☐ CONSENT ORDER INVESTIGATION
- ☐ SOURCE TEST MONITORING
- ☐ VISIBLE EMISSIONS OBSERVATION
- ☐ SAMPLE COLLECTED
- ☐ PHOTOS TAKEN
- ☐ MEETING WITH COMPANY
- ☐ TELEPHONE CONVERSATION
- ☐ LETTER _____
- ☐ OTHER _____

MAJOR SOURCE: ☒ A-1 ☐ A-2 ☐ NESHAP ☐ NSPS ☐ CEM ☐ PSD

LEVEL OF INSPECTION: ☐ LEVEL I ☒ LEVEL II ☐ LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL | PERMIT / RULE / ORDER | STATUS

On September 13th, I conducted an annual investigation of the Ford Romeo Tractor Plant operations. My contacts were Linda Gamble of the Ford SSEOD staff and Ken Jenkins.

In addition to the plant inspection, we also reviewed the status of various existing permits.

Permit #53-79, for a paint sanding operation, with dry filter, has been scrapped. I will send a recommendation to the Permit Unit that this permit be voided out. On Permit #293-73, the relocated cylinder washer has been scrapped, leaving two washers on this permit. This is a minor change & will not need a permit modification. Permit #391-73 is for a touch-up booth in the modification building. This booth is used rarely. Permit #415-73 is for three flame cutters, with exhaust ventilation. The exhaust ventilation on two of the cutters has been replaced by a water table; however, no permit modification will be recommended at this time. Permit #89-75 for the hydraulic cylinder line is still in operation & exempt from Rule 621 under Section 8(a). The boilerhouse has three boilers, 50,000 pph each. All are currently fired with gas with #2 oil stand-by. Two of the boilers are covered under Permit #67-73 & the third boiler is covered under Permit #393-74. Permit #393-74 was revised 7-17-80 to include natural gas firing. On 6-2-80, the company applied for a modification of both of these permits to include natural gas firing; however, only Permit #393-74 was modified because the permit supplement to #67-73 as revised 7-17-78 already authorizes firing natural gas or fuel oil.

The recent Consent Order with the company has resulted in the company's submitting 4 new permit applications as required: #290-73A; #358-81A; #1036-73A; & #625-80A. Lynn Fiedler is processing these permit applications. Existing Permit #625-80 is for the small parts paint system. This line is also covered under Permit #215-73. The company agreed that both permits #215-73 & 625-80 can be voided out when #625-80A is issued. Linda Gamble pointed out that the existing VOC limits on Permit #625-80 are incorrect, but this matter should be resolved when #625-80A is issued. This matter was pointed out in the company's letter of June 23, 1985.

(continued)

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME _____ DATE OF REPORT _____ SUPERVISOR'S INITIALS _____

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

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DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT (Continued)

EST HMENT	COUNTY	ESTABLISHMENT NO.
FORD MOTOR COMPANY - Romeo Tractor	Macomb	B-2869
EQUIPMENT LOCATION	**DISTRICT**	**DATE MM DD YY**
701 3, 32 Mile Road	Northville	09 17 85
CITY / TOWNSHIP	**STAFF**	
Romeo, MI 48065	T. Maki	

INSPECTION RESULTS/REMARKS:

In another matter, we discussed the matter of the contract between Ford & Crown Divisions of the Allen Group, Sterling Heights. Crown Divisions manufactures & spray paints tractor cabs for Ford Tractor. In a letter from Crown, they pointed out that they are required to use paints supplied by the Ford Motor Company. At our meeting at Ford today, I pointed out that Ford may have some responsibility for Crown's use of paint which does not meet the 3.5 VOC limitation of Rule 621. They were aware of a similar matter involving Crown Enameling, in Detroit, However, they said that Crown Division of the Allen Group is a separate, unrelated company. Ken Jenkins said that he would review the situation with Crown Divisions & render assistance in helping them to come into compliance with Rule 621.

Ford's plan for compliance at Romeo Tractor involves the use of high solids paint applied heated by airless spray. The existing system at Ford Tractor is airless spray & additional equipment is being installed to apply the paint heated. Ken Jenkins said that Ford supplies paint to Crown Divs. of the Allen Group & it is likely that Crown will need to install additional equipment for Rule 621 compliance.

T. Maki

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

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DEPT. OF NATURAL RESOURCES
AIR QUALITY DIVISION

REPORT OF ANNUAL INVESTIGATIONS

PAGE

PRODU 07/09/85

F ROMEO TRACTOR&EQUIP PLT
FORD MOTOR CO
TRACTOR MFG & ASSEMBLY
701 E 32 MILE RD
ROMEO 48065
R W ALFRED

DISTRICT NO. 03
COUNTY 50 MACOMB
ESTAB. NO. B2869
313 7526551

STAFF T. Maki
CONTACT Ken Jenkins, Linda Gamble

NO.
DATE 9/13/85

TOTAL TIME, HOURS
PROJECTED TIME, HOURS

FQY	SID	ECODE	SOURCE NAME	PIECES	AVG HOURLY RATE	CONTROLS	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
	001	0018	#1 BOILER SN98660	1	77.80 MMBT			.56	.03
	002	0018	#2 BOILER SN 98861	1	77.80 MMBT			.56	.03
	003	0018	1 BRYAN WATER HEATER	1	1.90 MMBT			.02	
	004	0018	2 BRYAN WATER HEATER	1	1.75 MMBT			.02	
	005	1275	METHYL CHLOROFORM	1	.10 GALS				
00.5	006	1083	HYD CYLINDER BOOTH	1	.89 GALS	FAB FILTR	80.00	.01	
00.5	007	1085	IND TRACTOR RPR BTH	1	5.45 GALS	FAB-FILTR		.27	
00.5	008	1084	SMALL PARTS BTH/OVEN	1	25.65 GALS	WET BAFFL	99.40	.01	
00.5	009	1084	STRDL MNT CHASS B/O	1	12.26 GALS	WET BAFFL			
00.5	010	1085	AG TRACTOR RPR BTH	1	.73 GALS	FAB-FILTR	80.00	.01	
00.5	011	1085	FLATDECK CHASSIS BTH	1	1.43 GALS	WET BAFFL			
00.5	012	1085	TOUCH UP BOOTH	1	.21 GALS	FAB-FILTR			
	013	0018	#3 BOILER S/N 99011	1	77.80 MMBT			.56	.03
	015	0068	SHOT BLAST UNIT	1	.08 TONS	FAB-FILTR			
01.0	016	0079	ENGINE TEST STANDS	1	.83 GALS				
	017	1190	GASOLINE TANK 10K	1	1.90 GALS				
	018	0064	WELDING	1	94.72 LBS.				
	019	0560	CARPENTRY SHOP	1	TONS	FAB-FILTR			
	020	0060	GRINDERS ETC	1	TONS	SET-CHAM			
00.5	021	1085	MOD BLDG REPAIR BTH	1	.05 GALS	FAB-FILTR			
	022	0067	BLUE PRINT MACHINES	2	.24 GALS				

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [ ] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

		DATE MM/DD/YY: 12-02-80	
ESTABLISHMENT: Ford Romeo Proving Grounds	NO.: B-6640	QUARTER: Fourth	NO.: 4
NUMBER AND STREET: 4305 Mack Rd	CITY: Romeo	STAFF: F Rieth	NO.: 76
CONTACT: DeWain Sommers – Proving Grounds Admin. Supervisor; Joe Lennon – Regional Engineer Stationary Source Environmental Control	TITLE	COUNTY: Macomb	NO.: 50
PRIMARY ACTIVITY		DISTRICT: Pontiac	NO.: 03

REMARKS:

Met with Mr Sommers & Mr Lennon to learn about Proving Grounds operations. This facility had not yet been visited by AQD staff.

I had anticipated that there would be many sources observed that should be reported for EI. The company had previously reported just boilers & furnaces for heating office buildings & garages at the site.

The complex consists of approx. 6 square miles of land which has an extensive test track including various types of terrain & road surfaces for vehicle testing. All buildings & garages are located centrally.

Other than one very small paint spray booth which uses 10 gallons or less of paints each year, the only sources which are not currently reported for EI are 6 gasoline storage tanks with 12,000 gallon capacity (each tank). All have submerged fill pipes. Entered in EI system

There are no paint bake ovens, engine test stands, or incinerators at the complex. They have garages for repair & maintenance of test cars.

Mr Sommers pointed out that an error was made on their 1979 EI forms. None of their boilers or furnaces use natural gas, yet the 1980 forms showed 5,000 ft^3 of natural gas used in each boiler & furnaces. These numbers were all changed back to zeros.

PROJECT

- 01 MAJOR SOURCE
- 02 MINOR SOURCE
- 03 RESIDENCE
- 04 MEETING – CONFERENCE
- 05 TRAINING
- 07
- 08
- 09
- 10
- 00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
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18		
19		
00 OTHER (explain)		

COMPLIANCE STATUS

- A. IN COMPLIANCE
- B. UNKNOWN COMPLIANCE
- C. OUT OF COMPLIANCE NOT ON A SCHEDULE
- D. ON A SCHEDULE MEETING INCREMENTS
- E. ON A SCHEDULE, NOT MEETING INCREMENTS (B)
- F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

R5642
3/77

PROG. G/629/55
DEPT. F NATURAL RESOURCES
AIR Q .ITY DIVISION

REPORT OF ANNUAL INVESTIGATIONS

PRODUCED O

FORD ROMEO TRACTOR&EQUIP PLT
FORD MOTOR CO
TRACTOR MFG & ASSEMBLY
701 E 32 MILE RD
ROMEO 48065
D M ALEXANDER 752-6551

DISTRICT NO. 03
COUNTY 50 MACOMB
ESTAB. NO. B2869

STAFF Hanson
CONTACT D. ALEXANDER

NO. 84
DATE 9-28

TOTAL TIME, HOURS
PROJECTED TIME, HOURS

* = BILLED FOR SCHEDULED INVESTIGATION
S = SEMIANNUAL A = ANNUAL B = BIENNIAL

	SID	---- SOURCE NAME ----	PIECES	AVG.-HOURLY-RATE	---------- CONTROLS ----------	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
	001	GENERAL GAS/OIL BLR	1	77.80 MMBT			.44	.03
	002	GENERAL GAS/OIL BLR	1	77.80 MMBT			.44	.03
	003	GENERAL GAS/OIL BLR	1	1.90 MMBT			.02	
	004	GENERAL GAS/OIL BLR	1	1.75 MMBT			.02	
	007	OTHER SOLVENT USAGE	1	.18 GALS				
* A	008	TOP COAT SPRAY	1	21.95 GALS	WET BAFFL	50.00	.55	
* A	009	TOP COAT SPRAY	1	21.95 GALS	WET BAFFL	50.00	.55	
	010	TOP SPRAY BOOTH	6	8.00 GALS	FAB-FILTR	80.00	.08	
	011	BLUE PRINT MACHINES	2	6.84 GALS				
	013	GENERAL GAS/OIL BLR	1	77.80 MMBT			.44	.03
	015	PROD. GRINDERS ETC.	1	.07 TONS	FAB-FILTR			
	016	ENGINE TEST STANDS	1	1.33 GALS				
	017	GASOLINE STORAGE TANK	1	3.86 GALS				
	018	WELDING AND BRAZING	1	81.17 LBS.				
	019	WOOD PLANERS,SAWS,ETC	1	TONS	FAB-FILTR			
	020	GRINDERS, ETC.	1	TONS	SET-CHAM			

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION

for authority to construct, install or alter

and

for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO (Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)
FORD TRACTOR OPERATIONS

2 MAILING ADDRESS (Number, Street, City or Village, Zip Code)
2500 EAST MAPLE ROAD, TROY, MICHIGAN 48031

3 EQUIPMENT OR PROCESS LOCATION (Number, Street, City or Village, Township, Zip Code)
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION
[XX] Corporation [ ] Partnership [ ] Individual Owner [ ] Governmental Agency

5 GENERAL NATURE OF BUSINESS
TRACTOR & EQUIPMENT AND PARTS MANUFACTURING

6 EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment

Three (3) boilers, Erie City Division of Zurn Industries, Inc.
Capacity: 60,000 lbs./Hr. of saturated steam at 125 (maximum) PSIG each.
Purpose : Steam generation for building heating and process operations.
The boilers are of coal-fired configuration. However, all boilers were equipped to burn #2 fuel oil. During January, 1980, all three boilers were converted to burn natural gas as primary fuel and #2 oil as back-up fuel. At normal operating conditions, 72,000 cu. ft./hour with a heating value of 1,025 (± 75) BTU/cu. ft. The total sulphur content is (absolutely) less than 20 grains/100 cu. ft. of natural gas supplied by Southeastern Michigan Gas Company.
Boiler Heating Surface = 7,295 sq. ft. each, air heater surface = 4,100 sq. ft. each
Furnace Volume - - - = 3,190 cu. ft. each
Flue gas exhaust volume is rated at 29,800 CFM. Note: These are the same boilers described in application No. 67-73 (for Boilers 1 & 2) and Application No. 393-74 (For Boiler #3).

7 ESTIMATED COST: Air Pollution Control Equipment $_____ Total Project $_____

8 PRESENT STATUS OF EQUIPMENT: (Check and complete applicable items)

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started		
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
(X) Equipment has been altered		2/7/80
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) (Permit Number)

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof (Title) Plant Manager
(Signature) (Date) (Phone No.)

11 DISPOSITION OF APPLICATION:

USE ON

Permit to install approved and issued on _____ Signature _____

Permit to operate approved and issued on _____ Signature _____

FORM AP-1 1M 6/73

(Instructions for completing this form are on reverse side)

Lansing Permit File

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO: Tom Maki	FROM: K.L. Green	APPLICATION NO. 445-84
ESTABLISHMENT: Ford Romeo Tractor Equipment	COUNTY: Macomb	ESTABLISHMENT NO. B-2869 NEW
EQUIPMENT LOCATION: 700 E. 32 Mile Rd. Romeo	DISTRICT: Northville	DATE MM DD YY: 9 12/23/88
REGARDING: ☐ PERMIT TO INSTALL WITH SITE EVALUATION ☐ TAX EXEMPTION ☐ PERMIT TO OPERATE ☑ OTHER Void		PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

It is Recommended that Permit # 445-84 be voided, As The Equipment has been Removed from the Site. The company is In Aqueement.

COMPLIANCE BRANCH RECOMMENDATIONS:

☐ INSTALLATION AND SITE APPROVAL ☐ OPERATING APPROVAL ☐ DENIAL AS EXPLAINED
☐ TAX EXEMPTION APPROVAL ☐ SPECIAL CONDITIONS NOTED ABOVE ☑ Void

NAME K.L. Green DATE 9-23-88 DISTRICT ENGINEER INITIALS (B)

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

LF

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO. 445-84

APPLICATION WAS COMPLETE ON 6/4/84

AIR QUALITY DIVISION
JUN 4 - 1984
PERMIT SECTION

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION

for authority to construct, install or alter
and
for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO: (Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)
FORD MOTOR COMPANY

2 MAILING ADDRESS: (Number, Street, City or Village, Zip Code)
ROMEO TRACTOR & EQUIP. PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

3 EQUIPMENT OR PROCESS LOCATION: (Number, Street, City or Village, Township, Zip Code)
ROMEO TRACTOR & EQUIP. PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION: ☒ Corporation ☐ Partnership ☐ Individual Owner ☐ Governmental Agency

5 GENERAL NATURE OF BUSINESS:
AGRICULTURAL AND INDUSTRIAL TRACTOR MANUFACTURING

6 EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment
(2) Novavent Model NV-35 Welding Smoke and Fume Exhaust Systems. (See Attachment I). The subject systems are low volume/high velocity and will be used to capture welding smoke at its source. The smoke is vented to atmosphere at a stack discharge elevation of 40 feet above grade.

The primary purpose of the subject systems will be to collect welding smoke from manual MIG welding operations, which are performed in a batch run, job shop manner. The system operating schedule is 16 hours/day, 5 days/week, 50 weeks/year.

7 ESTIMATED COST: Air Pollution Control Equipment $ 55,000.00 Total Project $ 99,000.00

8 PRESENT STATUS OF EQUIPMENT: (Check and complete applicable items)

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started	6-18-84	12-21-84
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) (Permit Number)

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof (Title) Plant Manager
(Signature) ⊗ J. van de Kerckhof (Date) (Phone No.) 752-6551 X2103

11 DISPOSITION OF APPLICATION:
Subject to compliance with all Commission Rules and conditions
Permit to install approved and issued on ~~AUG 16 1984~~ OCT 13 1988 Signature Robert Miller
Permit to operate approved and issued on ~~OCT 18 1985~~ Signature Robert Miller
stipulated in the attached supplement.

VOID
Robert Miller

MDNR USE ONLY

FORM AP-1 1M 6/73

(Instructions for completing this form are on reverse side)

OCT 18 1985

Mr. J. van de Kerckhof, Plant Manager
Ford Motor Company
Romeo Tractor and Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. van de Kerckhof:

This letter is in reference to your Permit to Operate application for the two Novavent welding smoke and fume exhaust systems, located in the Romeo Tractor and Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan. This application, identified as No. 445-84, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplement. Please review these conditions thoroughly so that you may plan for and take the actions necessary to ensure compliance with all of these conditions.

You are advised that contaminants discharged to the surface waters and/or groundwaters; materials disposed of on land; hazardous waste storage, treatment, and disposal; and resource recovery facilities must be approved by other divisions of the Department of Natural Resources. For assistance to determine what approval may be required, you may contact the Department's Community Assistance Division at 517-373-8542. Additionally, your plant environment must be in compliance with all applicable requirements of the Departments of Public Health and Labor.

Thank you for your cooperation. Please contact me if you have any questions regarding this permit.

Sincerely,

Lynn Fiedler

Lynn Fiedler, Engineer
Southeast Permit Unit
Air Quality Division
(517) 322-1333

LnmF:
Enclosure
cc: Tom Maki
Frank Partee

SUPPLEMENT TO PERMIT NO. 445-84

Ford Motor Company
Romeo Tractor and Equipment Plant
Romeo, Michigan

October 18, 1985

GENERAL CONDITIONS

1. Approval of this Permit to Operate will remain in effect as long as compliance with all Commission rules and with all general and special conditions of this permit is maintained.

2. Rule 201 - Applicant shall not reconstruct, alter, modify, expand, or relocate this equipment unless plans, specifications, and an application for a Permit to Install are submitted to and approved by the Commission.

3. Rule 901 - Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.

4. Rule 208(3)(b) - Operation of this equipment shall not interfere with the attainment or maintenance of the air quality standard for any air contaminant.

5. Operation of this equipment shall not result in significant deterioration of air quality.

6. Rule 912 - Applicant shall provide notification of any abnormal conditions or malfunction of process or control equipment covered by this application, resulting in emissions in violation of the Commission rules or of any permit conditions for more than two hours, to the District Engineer. Such notice shall be made as soon as reasonably possible, but not later than 9:00 a.m. of the next working day. Applicant shall also, within 10 days, submit to the District Engineer a written detailed report, including probable causes, duration of violation, remedial action taken, and the steps which are being undertaken to prevent a reoccurrence.

7. Approval of this application does not preclude the Applicant from complying with any future regulations which may be promulgated under Act 348, P.A. 1965, as amended.

8. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

9. The restrictions and conditions of this Permit to Operate shall apply to any person or legal entity which now or shall hereafter own or operate the facilities for which this Permit to Operate is issued. Any new owner or operator shall immediately notify the Chief of the Permit Unit, in writing, of such change in ownership or principal operator status of this equipment.

SPECIAL CONDITION

10. Visible emissions from the welding operations shall not exceed a 6-minute average of 20% opacity, except as specified in Rule 301(1)(a).

I.C. 5616

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO:	FROM:	APPLICATION NO.
Lynn Fiedler	M Khuri	415-84

ESTABLISHMENT	COUNTY	ESTABLISHMENT NO.	NEW
Ford motor Co., Romeo Tractor and Equipment	Macomb	B2869	

EQUIPMENT LOCATION	DISTRICT	DATE MM DD YY
701 East 32 mile Rd	Northville	/ /

REGARDING:
- ☐ PERMIT TO INSTALL WITH SITE EVALUATION
- ☐ TAX EXEMPTION
- ☐ PERMIT TO OPERATE
- ☐ OTHER _____

PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

AIR QUALITY DIVISION
JUL 3 - 1985
PERMIT SECTION

COMPLIANCE BRANCH REMARKS:

Permit to operate the exhaust system serving the two Novovent welding system is recommended. fumes and smoke are exhausted through a stack (40) feet above ground level, system is in compliance of special and general conditions of the permit to install.

COMPLIANCE BRANCH RECOMMENDATIONS:
- INSTALLATION AND SITE APPROVAL
- ☐ TAX EXEMPTION APPROVAL
- ☒ OPERATING APPROVAL
- ☐ SPECIAL CONDITIONS NOTED ABOVE
- ☐ DENIAL AS EXPLAINED

NAME M Khuri DATE 6-7-85 DISTRICT ENGINEER INITIALS _____

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

AIR QUALITY DIVISION

JUN 20 1985

PERMIT SECTION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

June 18, 1985

Chief, Permit Unit
Air Quality Division, MDNR
PO Box 30028
Lansing, Michigan 48909

Gentlemen:

Subject: Request for Permit to Operate Novavent, Model NV-35

This is a request for a permit to operate two Novavent Welding Smoke and Fume Exhaust Systems located at the Romeo Tractor & Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan 48065.

Attached for your convenience, is a copy of Construction Permit No.445-84, for subject equipment.

Your early cooperation will be appreciated.

J. van de Kerckhof,
Plant Manager

Attachment

Copy sent to District Engineer
on JUN 27 1985

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO. 445-84

AIR QUALITY DIVISION

JUN 4 - 1984

PERMIT SECTION

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION

for authority to construct, install or alter

and

for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO: *(Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)*
FORD MOTOR COMPANY

2 MAILING ADDRESS: *(Number, Street, City or Village, Zip Code)*
ROMEO TRACTOR & EQUIP. PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

3 EQUIPMENT OR PROCESS LOCATION: *(Number, Street, City or Village, Township, Zip Code)*
ROMEO TRACTOR & EQUIP. PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION:
☒ Corporation ☐ Partnership ☐ Individual Owner ☐ Governmental Agency

5 GENERAL NATURE OF BUSINESS:
AGRICULTURAL AND INDUSTRIAL TRACTOR MANUFACTURING

6 EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment
(2) Novavent Model NV-35 Welding Smoke and Fume Exhaust Systems. (See Attachment I). The subject systems are low volume/high velocity and will be used to capture welding smoke at its source. The smoke is vented to atmosphere at a stack discharge elevation of 40 feet above grade.

The primary purpose of the subject systems will be to collect welding smoke from manual MIG welding operations, which are performed in a batch run, job shop manner. The system operating schedule is 16 hours/day, 5 days/week, 50 weeks/year.

7 ESTIMATED COST: Air Pollution Control Equipment $ 55,000.00 Total Project $ 99,000.00

8 PRESENT STATUS OF EQUIPMENT: *(Check and complete applicable items)*

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started	6-18-84	12-21-84
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) *(Permit Number)*

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof *(Title)* Plant Manager
(Signature) ⊗ *(Date)* *(Phone No.)* 752-6551 X2103

11 DISPOSITION OF APPLICATION:

Permit to install approved and issued on AUG 16 1984 Signature
Subject to compliance with all Commission Rules and conditions stipulated in the attached supplement.
Permit to operate approved and issued on Signature

MPCC USE ONLY

FORM AP-1 1M 6/75

(Instructions for completing this form are on reverse side)

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO:	FROM:	APPLICATION NO.
Tom Maki	Lynn Fiedler	445-84

ESTABLISHMENT	COUNTY	ESTABLISHMENT NO.	NEW
Ford Motor Co - Romeo Tractor & Equip	Macomb	B2869	

EQUIPMENT LOCATION	DISTRICT	DATE MM DD YY
701 E. 32 Mile Rd, Romeo	Pontiac	6 13 84

REGARDING:
- [x] PERMIT TO INSTALL WITH SITE EVALUATION
- [ ] TAX EXEMPTION
- [ ] PERMIT TO OPERATE
- [ ] OTHER _____

PLEASE REPLY BY: 6/22

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

Recommend issuance of a Permit to Install for two (2) Novavent Model NV-35 exhaust systems for the MIG welding operations at the Ford Romeo Tractor & Equipment Plant. Recommendation is based on knowledge of the site and of the proposed process. No nuisance or visible emission problems are anticipated from this equipment. Recommend special conditions as follows:

- Emission limits at your discretion

40. Visible emissions from the MIG welding operations shall not exceed 20%....

COMPLIANCE BRANCH RECOMMENDATIONS:
- [ ] INSTALLATION AND SITE APPROVAL
- [ ] TAX EXEMPTION APPROVAL
- [ ] OPERATING APPROVAL
- [ ] SPECIAL CONDITIONS NOTED ABOVE
- [ ] DENIAL AS EXPLAINED

NAME David Yanelle DATE 6/19/84 DISTRICT ENGINEER INITIALS MAK

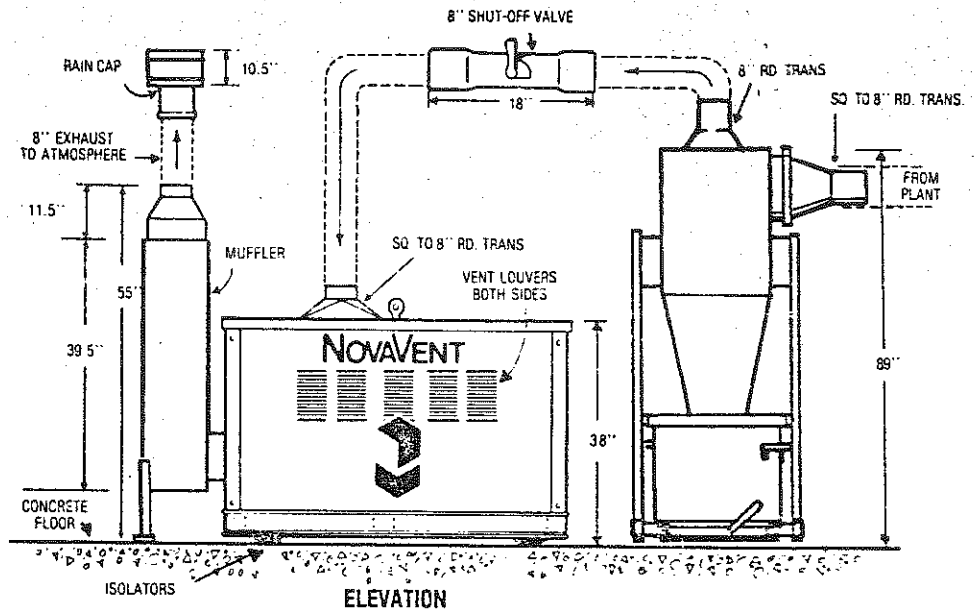
DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

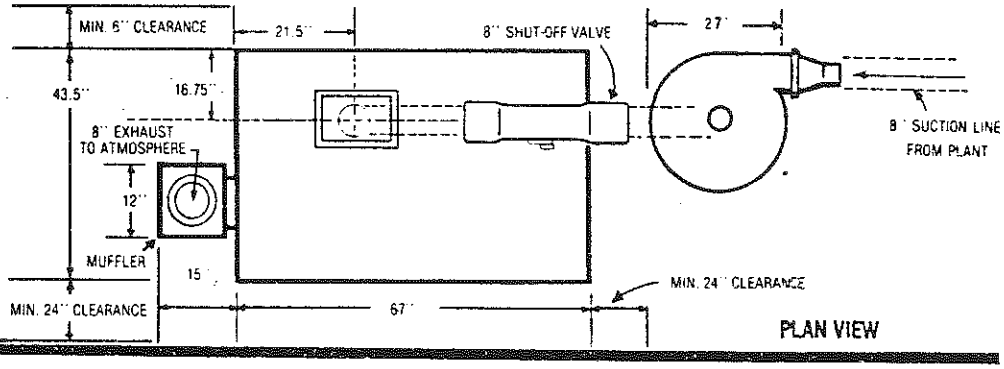
SPECIFICATIONS
SMOKE AND FUME EXTRACTOR UNITS

NOVAVENT North America Inc.

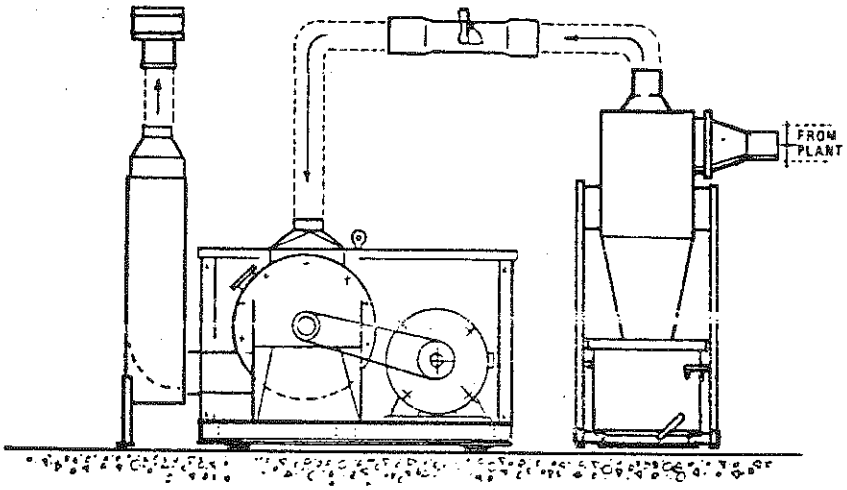
MODEL NV-28 & NV-35 DIMENSIONS & TYPICAL LAYOUT

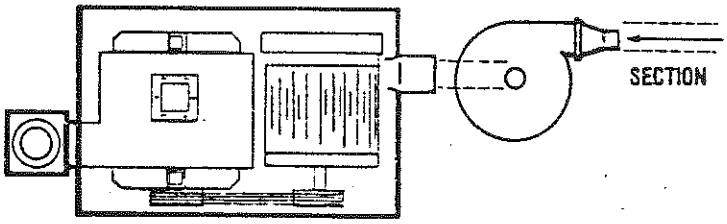


ELEVATION



PLAN VIEW





SECTION

NOTE: EX TOR UNIT SHOULD BE LOCA N CONCRETE PAD OR FLOOR - INDOORS OR OUT-DOORS. IT IS PREFERABLE TO LOCATE CYCLONE INDOORS FOR EASE OF ACCESS.

MODEL NV-28

CENTRAL EXTRACTOR NV-28 UNIT
with air exhaust capacity of 1650 CFM @ 80 in. W.G. Nominal capacity - 28 st'd. suction heads with 1 1/4" D. hoses or, up to 40 NovaGuns.

ELECTRIC MOTOR
40 h.p., TEFC, 208-230-460-575/3/60 power.

INSULATED CABINET
Sound level 69 dbA @ 3 ft. Panels 18 ga., corners 14 ga. cold-rolled steel. Paint, aluminum base, air dry enamel. Insulation, 1" acoustic glass fiber, density 1.5 lb/cu. ft. @ 1", bonded with thermosetting resin, fire resistance to NPFA 90A Standards.

TURBINE
2 stage, centrifugal, axial flow characteristics, developing 80 in. W.G. vacuum. Carbon steel welded housing 3/8", bolted 3/8" carbon steel side plates, alloy steel impellers, SKF, self-aligning, split pillow block ball-bearings, with 500 hr. relubrication cycle.

DRIVE SYSTEM
Motor, 5 groove, 6.5" D. - 3V, static balance, constant speed sheave. Turbine, 5 groove 5.3" D. 3V static balance, constant speed sheave. Belts, 71", (5) oil and heat resisting and static dissipating, cogged V-belts.

CYCLONE
12 ga. cold-rolled steel, container cap., 1.75 cu. ft., easy adjust, one-man single lever action receiver.

MAIN SUCTION LINES
8" diam. rigid PVC pressure pipe. Max. Lgth.
Single line 350 ft.
Closed loop 1000 ft.

MAIN EXHAUST LINE
8" diam. rigid PVC pressure pipe. Max. Lgth. 90 ft.

STANDARD EQUIPMENT
Extractor unit, cyclone, exhaust and suction line sq. to rd. transitions, isolators, rain cap, muffler and shut-off valve.

WEIGHTS
Extractor and muffler - 1309 lb.
Cyclone - 212 lb.

MODEL NV-35

CENTRAL EXTRACTOR NV-35 UNIT
with air exhaust capacity of 2060 CFM @ 80 in. W.G. Nominal capacity - 35 st'd. suction heads with 1 1/4" D. hoses or, up to 50 NovaGuns.

ELECTRIC MOTOR
50 h.p., TEFC, 208-230-460-575/3/60 power.

INSULATED CABINET
Sound level 69 dbA @ 3 ft. Panels 18 ga., corners 14 ga. cold-rolled steel. Paint, aluminum base, air dry enamel. Insulation, 1" acoustic glass fiber, density, 1.5 lb./cu. ft. @ 1", bonded with thermosetting resin, fire resistance to NPFA 90A Standards.

TURBINE
2 stage, centrifugal, axial flow characteristics, developing 80 in. W.G. vacuum. Carbon steel welded housing 3/8", bolted 3/8" carbon steel side plates, alloy steel impellers. SKF, self-aligning, split pillow block ball-bearings, with 500 hr. relubrication cycle.

DRIVE SYSTEM
Motor, 5 groove, 6.9" D.-3V, static balance, constant speed sheave. Turbine, 5 groove 5.3" D. 3V, static balance, constant speed sheave. Belts, 71", (5) oil and heat resisting and static dissipating, cogged V-belts.

CYCLONE
12 ga. cold-rolled steel, container cap., 1.75 cu. ft., easy adjust, one-man single lever action receiver.

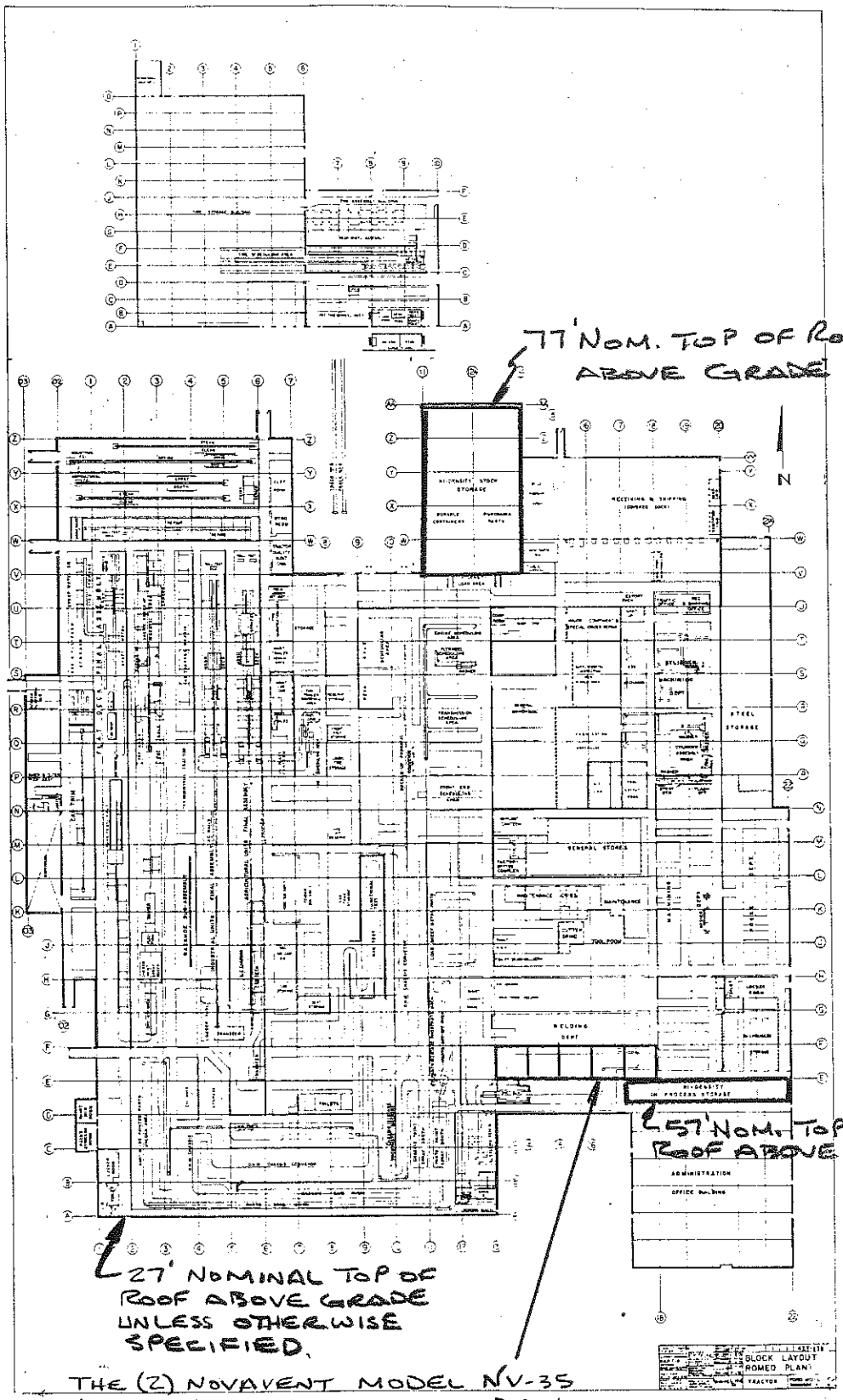
MAIN SUCTION LINES
8" diam. rigid PVC pressure pipe. Max. Lgth.
Single line 350 ft.
Closed loop 1200 ft.

MAIN EXHAUST LINE
8" diam. rigid PVC pressure pipe. Max. Lgth 90 ft.

STANDARD EQUIPMENT
Extractor unit, cyclone, exhaust and suction line sq. to rd. transitions, isolators, rain cap, muffler and shut-off valve.

WEIGHTS
Extractor and muffler - 1397 lb.
Cyclone - 212 lb.

AVENT NORTH AMERICA INC., 3550 WOLFEDALE RD., MISSISSAUGA, ONTARIO, CANADA L5C 2V6
TEL: (416) 273-4640, TELEX: 06-960428



THE (2) NOVAVENT MODEL NV-35 FUME EXTRACTORS WILL BE LOCATED WITHIN THESE (5) BAYS. THE EXACT LOCATION IS YET TO BE DETERMINED.

445-8

Lansing Permit File

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO: Tom Maki	FROM: K.L. Green		APPLICATION NO. 358-81
ESTABLISHMENT: Ford Romeo Tractor Equipment		COUNTY: Macomb	ESTABLISHMENT NO. B-2869 NEW
EQUIPMENT LOCATION: 700 E. 32 Mile Rd. Romeo		DISTRICT: Northville	DATE MM DD YY: 9/23/88
REGARDING: ☐ PERMIT TO INSTALL WITH SITE EVALUATION ☐ TAX EXEMPTION	☐ PERMIT TO OPERATE ☑ OTHER Void		PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

It is Recommended that Permit # 358-81 be voided, As The Equipment has been Removed from the site. The company is In Aqueement.

COMPLIANCE BRANCH RECOMMENDATIONS:

☐ INSTALLATION AND SITE APPROVAL ☐ OPERATING APPROVAL ☐ DENIAL AS EXPLAINED
☐ TAX EXEMPTION APPROVAL ☐ SPECIAL CONDITIONS NOTED ABOVE ☑ Void

K.L. Green DATE 9-23-88 DISTRICT ENGINEER INITIALS (B)

RIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

CANCELLED

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO 358-81

Air Pollution Control
JUN 08 1981

APPLICATION WAS COMPLETE ON 6-8-81

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION

for authority to construct, install or alter

and

for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO: (Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)
FORD MOTOR COMPANY

2 MAILING ADDRESS: (Number, Street, City or Village, Zip Code)
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

3 EQUIPMENT OR PROCESS LOCATION: (Number, Street, City or Village, Township, Zip Code)
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION: [X] Corporation [ ] Partnership [ ] Individual Owner [ ] Governmental Agency

5. GENERAL NATURE OF BUSINESS:
TRACTOR MANUFACTURING

6 EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment

A metal finishing system for tractors consisting of a two-stage washer, hot air blow-off, a down-draft water wash paint booth and a forced hot air dry-off oven.

Attached to this application are drawings:
4ZT-139 Sheets 1 and 2 - Block Layout
4ZT-130 Sheet 1 - Plot Plan

Also attached is chart on V.O.C. Flat Deck Water Wash Paint Booth

7 ESTIMATED COST: Air Pollution Control Equipment $ _____ Total Project $ _____

8 PRESENT STATUS OF EQUIPMENT: (Check and complete applicable items)

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started	10-1-81	
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) (Permit Number)

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof (Title) Plant Manager
(Signature) [signature] (Date) 6/4/81 (Phone No.)

11. DISPOSITION OF APPLICATION:

OCT 13 1988

* Subject to compliance with all Commission Rules and conditions stipulated in the attached supplement.

Permit to install approved and issued on JUN 23 1981 Signature Robert Miller

Permit to operate approved and issued on FEB 04 1983 Signature Robert Miller

VOID

Robert Miller

MDNR USE ON

FORM AP-1 1M 6/73 (Instructions for completing this form are on reverse side)

FEB 0 4 1983

Mr. J. Van de Kerckhof
Plant Manager
Ford Motor Company
Romeo Tractor & Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. Van de Kerckhof:

This letter is in reference to your Permit to Operate application for the flat deck tractor paint system, located at 701 East 32 Mile Road, Romeo, Michigan. This application, identified as No. 358-81, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplement.

Thank you for your cooperation. If you have any questions regarding this permit, please contact me at (517) 322-1333.

Sincerely,

Jonathan L. Trout, Senior Engineer
Permit Unit
Air Quality Division

JLT:mah
Enclosure

cc: R. Thomas Maki

SUPPLEMENT TO PERMIT No. 353-81

Romeo Tractor & Equipment Plant
Romeo, MI

FEB 0 4 1983

GENERAL CONDITIONS

1. Approval of this Permit to Operate will remain in effect as long as compliance with all Commission rules and with all general and special conditions of this permit is maintained.

2. Rule 201 - Applicant shall not reconstruct, alter, modify, expand, or relocate this equipment unless plans, specifications, and an application for a Permit to Install are submitted to and approved by the Commission.

3. Rule 901 - Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.

4. Rule 208(3)(b) - Operation of this equipment shall not interfere with the attainment or maintenance of the air quality standard for any air contaminant.

5. Operation of this equipment shall not result in significant deterioration of air quality.

6. Rule 912 - Applicant shall provide notification of any abnormal conditions or malfunction of process or control equipment covered by this application, resulting in emissions in violation of the Commission rules or of any permit conditions for more than two hours, to the District Engineer. Such notice shall be made as soon as reasonably possible, but not later than 9:00 a.m. of the next working day. Applicant shall also, within 10 days, submit to the District Engineer a written detailed report, including probable causes, duration of violation, remedial action taken, and the steps which are being undertaken to prevent a reoccurrence.

7. Approval of this application does not preclude the Applicant from complying with any future regulations which may be promulgated under Act 348, P.A. 1965, as amended.

8. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

9. The restrictions and conditions of this Permit to Operate shall apply to any person or legal entity which now or shall hereafter own or operate the facilities for which this Permit to Operate is issued. Any new owner or operator shall immediately notify the Chief of the Permit Unit, in writing, of such change in ownership or principal operator status of this equipment.

SPECIAL CONDITIONS

10. The volatile organic compound emission from the flat deck tractor paint system shall not exceed 55.3 pounds per hour nor 55.33 tons per year.

11. Visible emissions from the paint system shall not exceed 20% opacity except as specified in Rule 301(1a) and (b).

FEB 0 4 1983

12. Applicant shall not operate the paint system unless the water wash equipment is installed and operating properly.

13. The exhaust gases from the paint spray booth shall be discharged unobstructed vertically upwards to the ambient air from four stacks each with a maximum diameter of 36 inches at an exit point not less than 46 feet above ground level.

14. The exhaust gases from the oven shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 12 inches at an exit point not less than 46 feet above ground level.

15. Applicant shall not substitute any coatings for those described in this permit application without prior notification to and approval by the Air Quality Division.

JLT:nh

10-5-82

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO: Jon Trout	FROM: Dave Hanson	APPLICATION NO. 358-81
ESTABLISHMENT: Ford Romeo Tractor & Equip. Plt.	COUNTY: Mac. 10	ESTABLISHMENT NO. B2869 NEW
EQUIPMENT LOCATION: 701 E. 32 Mile Romeo	DISTRICT: Pont. 3	DATE MM DD YY: 10 1 1 82

REGARDING:
- ☐ PERMIT TO INSTALL WITH SITE EVALUATION
- ☐ TAX EXEMPTION
- ☑ PERMIT TO OPERATE
- ☐ OTHER _____

PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

On Sept. 28, 1983 I evaluated Ford's Flat Deck Tractor Paint system for a permit to operate.

Permit cond nos. 15, 16, 17, 18 were visually confirmed in compliance.

Nos. 14, 19 appear to be OK as they are operating under design capacity

Nos 20, 21 - OK on Ford's word.

(re) 20 - Ford Desires To reconnect booth for touch up) 434-78 OK

Rec. approval of permit to operate.

COMPLIANCE BRANCH RECOMMENDATIONS:
- ☐ INSTALLATION AND SITE APPROVAL
- ☐ TAX EXEMPTION APPROVAL
- ☑ OPERATING APPROVAL
- ☐ SPECIAL CONDITIONS NOTED ABOVE
- ☐ DENIAL AS EXPLAINED

NAME [signature] DATE 10 1 82 DISTRICT ENGINEER INITIALS MK

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

434-78 was originally required to shutdown w/ start up of 358-81.

Ford

98 is acceptable to operate booth under 1036-78.

12-3-82

Ford Tractor Operations
Ford Motor Company

2500 East Maple Road
Troy, Michigan 48084

June 16, 1982

Air Pollution Control
JUN 18 1982

Mr. John F. Caudell
Senior Engineer - Permit Unit
Air Quality Division
Department of Natural Resources
Stevens T. Mason Building
P. O. Box 30028
Lansing, Michigan 48909

Subject: Reinstallation of Assembly Line Paint Spraybooth - Romeo Tractor & Equipment Plant

Dear Sir:

This letter is to inform you that the subject spraybooth (originally installed under permit 434-78) is being reactivated and reinstalled as part of permit #1036-78. The reinstallation of this spraybooth will enable the touch-up painting operations currently being conducted in the two spraybooths (permit #1036-78) to be shared by the third booth. There will be no increase in paint emissions or increase in the volume of tractors being painted.

The reactivated booth is being reworked slightly to be similar to the two existing booths to accommodate the units that will be touch-up painted in the booth. However, the rework will not change or effect the booth collection efficiency.

Currently, all models of tractors assembled at the Romeo Plant are road-tested indoors and given a final acceptance (F.A.I.) after leaving the final assembly lines (#1, #2 and #3). In the course of the final acceptance inspection, which includes minor repairs and final quality control sign-off, the tractors undergo a paint touch-up operation in one of two paint spraybooths, (Permit #1036-78) depending upon model. The re-activation and re-installation of the referenced paint booth will allow an estimated 80% of the tractors on Line #1 to receive final inspection at the end of this assembly line. Consequently, these tractors will bypass the existing F.A.I. facilities and corresponding paint spraybooths. The only tractors that will then use the existing F.A.I. facilities will be those from Lines #2 and #3 and the remaining 20% from Line #1.

JUN 23 1981

Mr. J. Van De Kerckhof, Plant Manager
Ford Motor Company
Romeo Tractor & Equipment Plant
701 East 32 Mile Road
Romeo, MI 48065

Dear Mr. Van De Kerckhof:

This letter is in reference to your Permit to Install application for a flate deck tractor paint system comprised of a two-stage washer, modified water wash paint spray booth, and modified dry-off oven, located at 701 East 32 Mile Road, Romeo, Michigan. This application, identified as No. 358-81, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplement.

Furthermore, you are advised that contaminants discharged to municipal waste water treatment facilities or to natural waters must be approved by the Water Quality Division of the Department of Natural Resources; resource recovery facilities and materials disposed of on land must be approved by the Resource Recovery Division of the Department of Natural Resources; and the inplant environment must be in compliance with the applicable requirements of the Occupational Health Division of the Department of Public Health.

As a result of the shifting of some production from the main chasis line to the flat deck tractor line, the supplement to Permit to Operate No. 290-73 has been revised. Approval of this permit is now based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached revised supplement. In addition, Permit to Operate No. 465-73 has been voided because this equipment is no longer installed at this location.

THANK you for your cooperation. If you have any questions regarding these permits, please contact me at (517) 322-1333.

Sincerely,

Jonathan L. Trout, Senior Engineer
Air Quality Division
Permit Unit

JLT:kb
Enclosure
cc: Tom Maki

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
700 East 32 Mile Road
Romeo, Michigan 48065

June 4, 1981

Mr. Robert Miller, Acting Chief
Air Quality Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Dear Sir:

We have attached an application for a permit to combine two painting operations at the Romeo Tractor & Equipment Plant. Also attached are the following:

4ZT-139, Sheets 1 and 2 - Block Layout

4ZT-130, Sheet 1 - Plot Plan

Chart on V.O.C. emissions from the proposed Flat Deck Tractor Paint Booth

Equipment specifications

Units currently painted in the TW-30 Booth (Permit #434-78) and other flat deck units currently painted in the Main Chassis Line Booth (Permit #290-73) are to be combined and painted in a single new booth. Production rates, based on an operation schedule of 8 hours/day, 250 days/year, will be 40 units/day through the proposed booth, and 129 units/day through the Main Chassis Line Booth (a reduction from the current 160 units/day). As shown in the attached chart, V.O.C. emissions from the proposed booth do not represent new emissions, but rather a shift of 55.3 tons/year of existing emissions from the TW-30 booth and the Main Chassis Line Booth to the proposed booth. As part of the project to construct the proposed booth, the existing TW-30 Booth (Permit #434-78) will be removed. Further, the painting operations in the Wheel Loader Booth (Permit #465-73) will be discontinued and this booth will also be removed; this action will result in a decrease of V.O.C. emissions of 31.4 tons/year. Thus, the net effect of project (construction of the proposed Flat Deck Booth, shifting TW-30 and Flat Deck Tractor Painting Operations to this new booth, and removal of the existing TW-30 and Wheel Loader Booths) will be a reduction of 31.4 tons/year of V.O.C. emissions.

Mr. Robert Miller, Acting Chief
Air Quality Division

June 4, 1981

The existing TW-30 Booth and Wheel Loader Booth utilize dry filters for control of particulate emissions (collection efficiency - 85%). The proposed Flat Deck Tractor Booth will be constructed with a water-wash back section for control of particulate emissions (collection efficiency - 99%). This will result in a reduction of particulate emissions.

Because of the requirement to interface the construction work with current production operations, site preparation and foundation work must commence as soon as possible. Therefore, we request an approval of location as provided by subrule (2) of Rule 336.1201.

If you have any questions or require additional information, please contact John F. VanDyke of Ford's Stationary Source Environmental Control Office (313-322-5548).

J. van de Kerckhof,
Plant Manager

Attachments

cc A. B. M. Houston
J. F. VanDyke

A. H. Chapman
F.T.O., Troy

MEO TRACTOR VOC EMISSIONS CHANGES

ASELINE DATE FOR DEFINITION OF " .. MAJOR OFFSET SOURCE" = DEC 21, 1976

K EMISSIONS BEFORE	DATE	ACTION	VOC EMISSIONS AFTER	NET EFFECT
none	6/78	NEW TW-30 BOOTH/OVEN	12.80 T/yr	+ 12.80
22.49 T/yr	2/79	RELOCATE AND EXTEND TWO TOUCH-UP BOOTHS *	22.49 T/yr	0
46.26 T/yr	2/79		46.26 T/yr	0
59.7 T/yr FROM ONE BOOTH	10/80	MOVE TWO SMALL PART PAINTING STATIONS TO NEW BOOTH	59.7 T/yr NOW FROM BOOTH	0
42.54 T/yr FROM EXISTING BOOTH MAIN CHASSIS LINE	80-81	MOVE FLAT-DECK PAINTING FROM MAIN CHASSIS LINE TO NEW FLAT-DECK BOOTH	42.54 T/yr NOW FROM NEW BOOTH	0
12.80 T/yr FROM EXISTING TW-30 BOOTH/OVEN	80-81	MOVE TW-30 PAINTING TO NEW FLAT-DECK BOOTH, TEAR OUT TW-30 BOOTH	12.80 T/yr NOW FROM NEW BOOTH	0
31.38 T/yr FROM EXISTING WHEEL-LOADER BOOTH	80-81	DISCONTINUE PAINTING WHEEL-LOADERS, TEAR OUT BOOTH	none	-31.38
			TOTAL NET EFFECT	- 18.58

THIS PERMIT TO OPERATE PUT ON HOLD STATUS PER MAY '81 LETTER FROM MDNR REQUESTING ADDITIONAL INFORMATION ON PAINT SOLVENT COMPOSITION

Attachment I

Ford Romeo Tractor Plant - Equipment Specifications and Process

The following listed equipment will be designed and built by a vendor for the purpose of painting tractors.

Flat Deck Tractor Wash - Paint - Dry-Off

Operational Sequence

The Flat Deck tractor is transported by means of an overhead conveyor through a two-stage washer and hot blow-off then into a down-draft water wash paint booth, (primer and finish air dry paint are manually sprayed) and into a forced hot air dry-off oven producing 40 units/day, in 8 hours of operation/day.

- New two-stage washer - first stage is a clean and phosphate process, second stage is a rinse and a hot air blow-off, is provided with two 5,000 C.F.M. exhaust and two 18" diameter stacks exhausting 46 feet above grade.

- Down draft water wash paint booth.

  This booth will have (4) 18,000 C.F.M. fans at 3" S.P. and (4) 36" diameter stacks exhausting 46 feet above grade.

  Air Make-Up 90,000 C.F.M. gas-heated, humidified filtered air make-up station to service the downdraft water wash paint booth.

- The dry-off oven relocated from the TW-30 Paint System #434-78 will be modified and reused with a 20' 0" extension and air seals at entrance and exit, one 5,000 C.F.M. exhaust fan 1" S.P. and 12" diameter stack will be provided exhausting 46 feet above grade. Oven temperature 200°F (maximum).

- Wheel Loader paint operations will be discontinued and deleted - Permit #465-73.

  The wash deck and the spray booth will be removed and dismantled.

- TW-30 Tractor Paint Operations will be discontinued and deleted - Permit #434-78.

  The wash deck and spray booth will be removed and dismantled. The dry-off oven will be modified and relocated for the Flat Deck Tractor Paint System.

FLAT DECK WATER WASH PAINT BOOTH

APPLICATION #

DESCRIPTION							% V.O.C IN LBS																		SOLVENTS ADDED % IN LB		
RAW PAINT																											
	PAINT NO	TYPE	COLOR	PAINT LB/GAL	TOTAL V.O.C LBS	ANNUAL USAGE GAL	DIBASIC ESTER	BUTYNOL	XYLENE	TOLUENE	NAPTHA	BUTYL ACETATE	METHYL ALCOHOL	METHYL AMYL KETONE	XYLENE & SILVESSO	EOWANOL DPM	HISOL	MINERAL SPIRITS	DIETHYL AMINE	HI BOILING NAPTHA	MISC. SOLVENTS	ETHYL ALCOHOL	CELLOSOLVE ACETATE	2-ETHYL HEXANOL	HISOL	XYLENE	2-ETHYL HEXANOL
A	M6J 96 A PRIMER	PRIME AIR DRY	TAUPE	10.36	43.99	7,791		3.19	33.05								2.83	4.77			0.15						
B	M6J 96A PRIMER	PRIME AIR DRY	TAUPE	10.36	43.99	1,714		3.19	33.05								2.83	4.77			0.15						
C	M6J 96A PRIMER	PRIME AIR DRY	TAUPE	10.36	43.99	6,076		3.19	33.05								2.83	4.77			0.15						
A	M2J 114A M1639A	ALKYD BAKE ENAMEL	BLUE	8.16	57.13	11,582		12.08	33.81	1.63	5.73	1.44				1.72	0.22	0.17			0.33						
B	M2J 114A M1639A	ALKYD BAKE ENAMEL	BLUE	8.16	57.13	2749		12.08	33.81	1.63	5.73	1.44				1.72	0.22	0.17			0.33						
C	M2J 114A M1639A	ALKYD BAKE ENAMEL	BLUE	8.16	57.13	8833		12.08	33.81	1.63	5.73	1.44				1.72	0.22	0.17			0.33						
B	M1J 104A M5771A	ALKYD AIR DRY ENAMEL	NEW YELLOW	8.77	53.76	10,600		1.07	36.82	4.86	9.58	0.15	0.26							0.29	0.67	0.06					
MIXED PAINT (W)						ANNUAL VOC LBS	FLAT DECK WATER WASH PAINT BOOTH.																				
A	M6J 96A PRIMER	PRIME AIR DRY	TAUPE	10.13	50.71	40,021		3.26	39.52								2.89	4.89			0.15					5.73	
A	M2J 114A M1639A	ALKYD BAKE ENAMEL	BLUE	7.99	76.34	70,645		12.33	38.15	1.67	5.86	1.47				1.75	14.60	0.17			0.34				14.38	3.63	
					TOTAL	110,666																					
△ WHEEL LOADER (X)							CREDIT																	PERMIT # 465-73			
B	M1J 104A M5771A	ALKYD AIR DRY ENAMEL	NEW YELLOW	8.51	69.57	62,756		1.10	37.94	5.01	9.87	0.15	0.27							0.29	0.69	0.06				14.19	
⊗ TW-30 TRACTOR (Y)							CREDIT																	PERMIT # 434-78			
B	M6J 96A PRIMER	PRIME AIR DRY	TAUPE	10.13	50.71	8,806		3.26	39.52								2.89	4.89			0.15					5.73	
B	M2J 114A M1639A	ALKYD BAKE ENAMEL	BLUE	7.99	76.34	16,770		12.33	38.15	1.67	5.86	1.47				1.75	14.60	0.17			0.34				14.38	3.63	
					TOTAL	25,576																					
⊗ CHASSIS PAINT (Z)							CREDIT																	PERMIT # 290-73			
C	M6J 96A PRIMER	PRIME AIR DRY	TAUPE	10.13	50.71	31,215		3.26	39.52								2.89	4.89			0.15					5.73	
C	M2J 114A M1639A	ALKYD BAKE ENAMEL	BLUE	7.99	76.34	53,875		12.33	38.15	1.67	5.86	1.47				1.75	14.60	0.17			0.34				14.38	3.63	
					TOTAL	85,090																					

NOTES

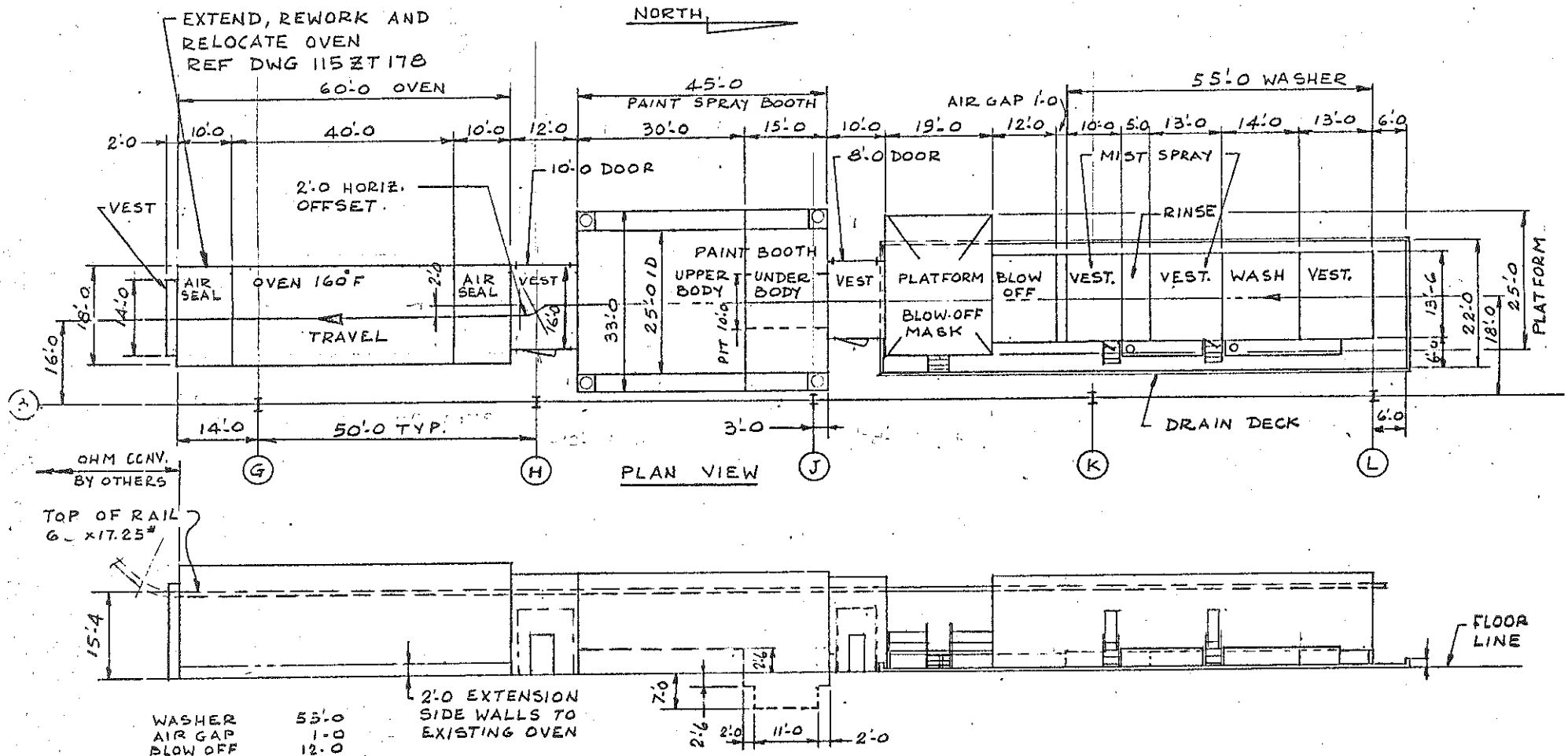
TOTAL EFFECTIVE ANNUAL V.O.C LBS W-(X+Y+Z) = -(62,756) LBS

△ OPERATION IS DISCONTINUED IN 1981

⊗ TRANSFERED TRACTOR CHASSIS TO NEW FLAT DECK WATER WASH PAINT BOOTH DECK

M.LOBO
3-23-81

PIR 024915



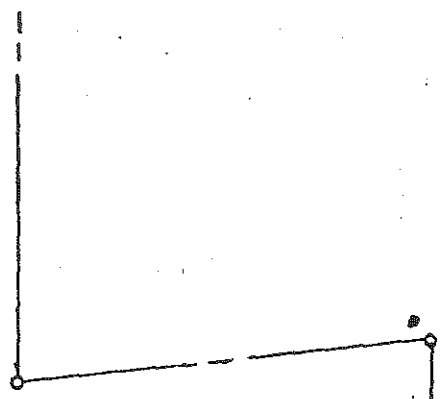
WASHER	55'-0
AIR GAP	1-0
BLOW OFF	12-0
PLATFORM	19'-0
SPRAY BOOTH & VESTIBULE	67-0
OVEN & AIR SEALS	60'-0
VESTIBULE	2'-0
TOTAL	216-0

FLAT DECK TRACTOR PAINT SYSTEM

ROMEO TRACTOR & EQUIP. PLANT

SK 5151

MLobo
5-21-81



CHANGES CONTINUED

RELOCATED MFG. BANK - ADDED QUALITY CONTROL AREA, RUBBISH COMPACTOR, POOL CAR AREA AND TIRE & WHEEL UNLOADING DOCK

1-30-73 T.T.

ADDED EXISTING TRESTLE - UPDATED FENCE AT EAST GUARD HOUSE

2-10-73 T.T.

UP-DATED WASTE TREATMENT AREA - ADDED LAGOONS & WET WELLS

2-20-73 T.T.

ADDED (4) BAYS TO BLDG. (10,000 SQ.FT.) CHANGED ROADWAY DELETED 10,000 SQ.FT. FROM TIRE & WHL. STOR.

2-23-73 R.C.B.

(2) NORTH BAYS OF NEW BLDG. ADDITION MOVED TO EAST SIDE OF BLDG. ADDITION CHANGED ROADWAY

2-27-73 R.C.B.

ADDED 10,000 □ OF PAVED AREA TO TIRE & WHEEL STORAGE AREA

2-28-73 R.C.B.

RELOCATED MFG BANK, QUALITY CONTROL, SALVAGE AREA'S & OIL DYKE DELETE LOCATION OF FUTURE COAL PILE & SILO

3-9-73 R.C.B.

RELOCATED OUTSIDE UNLOADING DOCK & RAMP NORTH PER DWG 4ZT-166

4-12-73 RCB.

REMOVED ONE EDISON TOWER & ADDED 2 NEW

5-7-73 J.McK.

REVISED SLUDGE LAGOONS RELOCATED SPEC. CONT. EXP., CONT. TRAN. EXP., SPEC. CONT. & CONT. TRANSP. AREAS REVISED BLDG. TOTAL SQ.FT. WAS 942,250

6-13-73 R.C.B.

REVISED CONTRACT & SPECIAL CONTRACT AREA

9-14-73 R.F.L.

ADDED CONTRACTOR SHIPPING BLDG. & RAMP CONCRETE STORAGE PADS & OIL TANK

9-13-74 R.C.B.

ADDED 22,500 SQ.FT. BUILDING ADDITION — WEST SIDE BAY K TO S UPDATED DRWG.

5-6-75 L.P.A.

RELOCATED COMPACTORS

CHANGES

GENAL REVISIONS

5-30-72 EJB

MFG. AREA WAS 936,000.

7-13-72 EJB.

R.R. SPUR TO BOILER HOUSE & STEEL STRG DELETED.
1-OIL TANK DELETED
PROPANE STORAGE DELETED.
FENCING AROUND WEST SIDE HOURLY PARKING LOT DELETED.
ROADWAY AND VISITORS PARKING DELETED.
COAL PILE AREA DELETED.
RACK POOL & TRAILER AND SALVAGE AREAS REDUCED.
OFFICE & EMPLOYEE FACILITY BLDG ADDED.

7-14-72 E.J.B.

BY-LEVEL & TEL-LEVEL LOADING RAMPS RELOCATED.
RAILROAD SPUR IN TIRE & WHEEL STORAGE SHORTENED.
GATE WEST SIDE OF SPECIAL CONTRACT DELETED.
ROADWAY GATE & FENCE NORTH OF SPECIAL CONTRACT EXPANSION DELETED.
FENCE NORTH OF CONTRACT TRANSP. EXPANSION ADDED.

7-21-72 JRC

RENTENTION POND REVISED.
FENCING REVISED TO SUIT RENTENTION POND
TRACTOR TEST AREA WAS 100' x 300'
ROADWAY ADDS
COL M - WEST SIDE OF BLDG.
ROADWAY & SIDEWALK - COL. H - WEST SIDE OF BLDG.
ROADWAY AT NORTH WALL COL. Y.
ROADWAY AT COL M - EAST WALL
45° RECEIVING BAYS ADDED COL. V - 9/10. REF. 4ZT-128
NEW GUARD HOUSE & RELATED FENCING RELOCATED.
DEPRESSED DOCK FOR COMPACTOR ADDED.
CONCRETE AREA ADDED F.J-1-2.
ROADWAY ADDED BAY J-1-2.

7-25-72 - EJB.

OFFICE BLDG RELOCATED TO EAST WALL OF MFG. BLDG.
SWINGING GATES CHANGED TO

Lansing Permit File

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TOM MAKI	FROM: K.L. Green	APPLICATION NO. 358-81A
ESTABLISHMENT: Ford Romeo Tractor Equipment	COUNTY: MACOMB	ESTABLISHMENT NO. B-2869 NEW
EQUIPMENT LOCATION: 700 E. 32 Mile Rd. Romeo	DISTRICT: Northville	DATE MM DD YY: 9 / 23 / 88
REGARDING: ☐ PERMIT TO INSTALL WITH SITE EVALUATION ☐ TAX EXEMPTION ☐ PERMIT TO OPERATE ☑ OTHER Void		PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

It is Recommended that Permit # 358-81A be voided, As The Equipment has been Removed from the site. The company is In Aqueement.

COMPLIANCE BRANCH RECOMMENDATIONS:

☐ INSTALLATION AND SITE APPROVAL
☐ TAX EXEMPTION APPROVAL
☐ OPERATING APPROVAL
☐ SPECIAL CONDITIONS NOTED ABOVE
☐ DENIAL AS EXPLAINED
☑ Void

NAME K.L. Green DATE 9-23-88 DISTRICT ENGINEER INITIALS

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

ORIGINAL FILE

F

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO. 358-81 A

AIR QUALITY DIVISION
APR 29 1985
PERMIT SECTION

APPLICATION WAS COMPLETE ON 8/8/85 PHONE

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION
for authority to construct, install or alter
and
for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO: *(Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)*
FORD MOTOR COMPANY

2 MAILING ADDRESS: *(Number, Street, City or Village, Zip Code)*
ROMEO TRACTOR AND EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

3 EQUIPMENT OR PROCESS LOCATION: *(Number, Street, City or Village, Township, Zip Code)*
ROMEO TRACTOR AND EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION:
[X] Corporation [ ] Partnership [ ] Individual Owner [ ] Governmental Agency

5 GENERAL NATURE OF BUSINESS:
TRACTOR MANUFACTURING

6 EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment

Previous permit No. 358-81 for Flat Deck Chassis Paint System to be revised to include the use of coatings with 3.5 pounds of VOC per gallon coating, minus water for standard color paints.

See Attachment I.

7 ESTIMATED COST: Air Pollution Control Equipment $ _____ Total Project $ _____

8 PRESENT STATUS OF EQUIPMENT: *(Check and complete applicable items)*

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started		
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) *(Permit Number)*

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof *(Title)* Plant Manager
(Signature) [signature] *(Date)* 4/25/85 *(Phone No.)* (313)752-8225

11 DISPOSITION OF APPLICATION:

OCT 13 1988

*Subject to compliance with all Commission Rules and conditions stipulated in the attached supplement.

Permit to install approved and issued on OCT 1[illegible] 1985 Signature Robert Miller

Permit to operate approved and issued on _____ Signature Robert Miller

VOID

MDNR USE ONLY

FORM AP-1 1M 6/73

(Instructions for completing this form are on reverse side)

Copy sent to District Engineer
NOV 6 1985

AIR QUALITY DIVISION
NOV 5 - 1985
PERMIT SECTION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
700 East 32 Mile Road
Romeo, Michigan 48065

November 1, 1985

Chief, Permit Unit
Air Quality Division
Department of Natural Resources
PO Box 30028
Lansing, MI 48907

Subject: Operating Permit Nos. 358-81A, 290-73A, 625-80A, 1036-78A - Romeo Tractor & Equipment Plant

Gentlemen:

In accordance with General Rules Part 2, R336.208(2) of the Michigan Air Pollution Control Commission, application is hereby made for operating permits for the following processes:

- Flat Deck Chassis Paint System (#358-81A)
- Straddle Mount Chassis Paint System (#290-73A)
- Small Parts Paint Line (#625-80A)
- Industrial Tractor Repair Paint Booth,
  Agricultural Tractor Repair Paint Booth,
  Touch-up Repair Paint Booth (#1036-78A)

Installation permits were approved for #358-81A on October 11, 1985 and for #290-73A, #625-80A and #1036-78A on October 18, 1985. Exisitng permits 358-81, 290-73, 625-80 and 1036-78 can be voided upon issuance of these operating permits.

Your cooperation in expediting the above operating permits would be appreciated.

Sincerely,

J. van de Kerckhof,
Plant Manager

0018g

OCT 11 1985

Mr. J. van de Kerckhof, Plant Manager
Ford Motor Company
Romeo Tractor and Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. van de Kerckhof:

This letter is in reference to your Permit to Install application for the modified Flat Deck Chassis Paint System with new low solvent coatings, located at the Romeo Tractor and Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan. This application, identified as No. 358-81A, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplement. Please review these conditions thoroughly so that you may plan for and take the actions necessary to ensure compliance with all of these conditions. Also note that Condition No. 1 requires you to apply, in writing, for a permit to operate within 30 days after completion of construction.

You are advised that contaminants discharged to the surface waters and/or groundwaters; materials disposed of on land; hazardous waste storage, treatment, and disposal; and resource recovery facilities must be approved by other divisions of the Department of Natural Resources. For assistance to determine what approval may be required, you may contact the Department's Community Assistance Division at 517-373-8542. Additionally, your plant environment must be in compliance with all applicable requirements of the Departments of Public Health and Labor.

Thank you for your cooperation. Please contact me if you have any questions regarding this permit.

Sincerely,

Lynn Fiedler, Engineer
Southeast Permit Unit
Air Quality Division
(517) 322-1333

LF:nm
Enclosure
cc: Tom Maki
Frank Partee

Air Permits

Lansing Permit File

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO: Tom Maki	FROM: K.L. Green	APPLICATION NO. 625-80
ESTABLISHMENT: Ford Romeo Tractor Equipment	COUNTY: Macomb	ESTABLISHMENT NO. B-2869 / NEW
EQUIPMENT LOCATION: 700 E. 32 Mile Rd. Romeo	DISTRICT: Northville	DATE MM DD YY: 9 / 23 / 88
REGARDING: ☐ PERMIT TO INSTALL WITH SITE EVALUATION ☐ TAX EXEMPTION ☐ PERMIT TO OPERATE ☑ OTHER Void		PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

It is Recommended that permit # 625-80 be voided, As the Equipment has been Removed from the site. The company is In Aqueement.

DISCONTINUED

COMPLIANCE BRANCH RECOMMENDATIONS:

☐ INSTALLATION AND SITE APPROVAL
☐ TAX EXEMPTION APPROVAL
☐ OPERATING APPROVAL
☐ SPECIAL CONDITIONS NOTED ABOVE
☐ DENIAL AS EXPLAINED
☑ Void

NAME K.L. Green DATE 9-23-88 DISTRICT ENGINEER INITIALS (B)

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

R

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO 625-80

APPLICATION WAS COMPLETE Air Pollution Control
ON 1-8-81 JUL 11 1980

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION
for authority to construct, install or alter
and
for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1. PERMIT TO BE ISSUED TO: *(Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)*
FORD MOTOR COMPANY

2. MAILING ADDRESS: *(Number, Street, City or Village, Zip Code)*
ROMEO TRACTOR & EQUIPMENT PLANT, 701 EAST 32 MILE ROAD, ROMEO, MICHIGAN 48065

3. EQUIPMENT OR PROCESS LOCATION: *(Number, Street, City or Village, Township, Zip Code)*
ROMEO TRACTOR & EQUIPMENT PLANT, 701 EAST 32 MILE ROAD, ROMEO, MICHIGAN 48065

4. TYPE OF ORGANIZATION: [X] Corporation [ ] Partnership [ ] Individual Owner [ ] Governmental Agency

5. GENERAL NATURE OF BUSINESS:
TRACTOR MANUFACTURING

6. EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment

Extend the Small Parts Paint System for miscellaneous parts. The original permit, No. 215-73 was issued 5/3/73.

The modification will consist of extending the existing vestibule, and the addition of (2) enclosed side draft booths, enabling the rearrangement of paint station operators. The two painters in the present booth will be relocated in the new booths. The extension will neither increase paint usage nor increase the emissions from the present levels. Attached to this application are drawings, block layout 4ZT-139 and plot plan 4ZT-130, equipment layout 115ZT-159 of the Romeo Tractor Plant and pertinent system detail.

7. ESTIMATED COST: Air Pollution Control Equipment $ _____ Total Project $ _____

8. PRESENT STATUS OF EQUIPMENT: *(Check and complete applicable items)*

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started		
( ) Construction or installation partly completed		
(x) Construction completed	7/28/80	8/31/80
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9. NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) *(Permit Number)*

10. TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof *(Title)* Plant Manager
(Signature) [signature] *(Date)* July 9/80 *(Phone No.)* (313) 752-6551 Extn. 2103
DON HINCKHOF X 2108 - MAURICE LOBO

11. DISPOSITION OF APPLICATION:
Subject to compliance with all commission stipulated in the attached supplement.
Permit to install approved and issued on JAN 20 1981 Signature Robert Miller
Permit to operate approved and issued on AUG 04 1981 Signature Robert Miller

OCT 13 1988
VOID
Robert Miller

MDNR USE ONLY

FORM AP-1 1M 6/73

(Instructions for completing this form are on reverse side)

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
M/ NE J. FLUHARTY
S: N V. MONSMA
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE
HARRY H. WHITELEY

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

DEC 2 1985

Mr. J. Van de Kerckhof, Plant Manager
Ford Motor Company
Romeo Tractor & Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. Van de Kerckhof:

This letter is in reference to your Permit to Operate issued on January 15, 1974, for the small parts paint system consisting of a phosphate washer, a dry-off oven, a paint spray booth, and a bake oven, located at Romeo Tractor and Industrial Equipment Plant, 32 Mile Road, Romeo, Michigan.

This permit, identified as No. 215-73, has been voided because the system has been modified and is covered by Permit to Operate No. 625-80.

Please contact me if you have any questions concerning this action.

Sincerely,

Lynn Fiedler, Engineer
Southeast Permit Unit
Air Quality Division
517-322-1333

LF:jmc
Enclosure
cc: Tom Maki
File No. 625-80

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TO: LYNN FIEDLER	FROM: Tom Maki	APPLICATION NO. 215-73
ESTABLISHMENT: FORD ROMEO TRACTOR	COUNTY: Macomb	ESTABLISHMENT NO. B-2869 NEW
EQUIPMENT LOCATION: 701 E. 32 Mile Road	DISTRICT: Northville	DATE MM DD YY: 09/14/85

REGARDING:
- ☐ PERMIT TO INSTALL WITH SITE EVALUATION
- ☐ TAX EXEMPTION
- ☐ PERMIT TO OPERATE
- ☒ OTHER VOID

PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

AIR QUALITY DIVISION
SEP 17 1985
PERMIT SECTION

COMPLIANCE BRANCH REMARKS:

During my recent annual inspection at Ford Romeo, I learned that the small parts paint line is currently covered under both #215-73 and #625-80.

In your review of #625-80A, I'd suggest voiding out both 215-73 & 625-80 and incorporating them by reference into 625-80A.

Both prime & topcoat are applied on the present line, with a short flashoff area between

COMPLIANCE BRANCH RECOMMENDATIONS:
- ☐ INSTALLATION AND SITE APPROVAL
- ☐ TAX EXEMPTION APPROVAL
- ☐ OPERATING APPROVAL
- ☐ SPECIAL CONDITIONS NOTED ABOVE
- ☐ DENIAL AS EXPLAINED
- ☒ VOID

NAME Tom Maki DATE 9/14/85 DISTRICT ENGINEER INITIALS

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

STATE OF MICHIGAN

WILLIAM G. MILLIKEN, Governor

DEPARTMENT OF NATURAL RESOURCES

HOWARD A. TANNER, Director

NATURAL RESOURCES COMMISSION
JACK HOEFER
E. M. HAITALA
HILARY F. SNELL
PAUL W. WENDLER
HARRY H. WHITELEY
JOAN L. WOLFE
CHARLES G. YOUNGLOVE

AIR POLLUTION CONTROL COMMISSION
Lee E. Jager
William C. Achinger
C. William Colburn, Ph.D.
Mary L. Graves
Edward J. Klopp, Jr. M.D.
Patricia A. Moore
Donald R. Naish
Dean M. Pridgeon
Glenda F. Robinson
Edwin S. Shannon
Dennis P. Tierney, Ph.D.

State Secondary Complex
P.O. Box 30028
Lansing, MI 48909
(517) 322-1330

AUG 0 4 1981

Mr. J. van de Kerckhof
Plant Manager
Ford Motor Company
Romeo Tractor & Equipment Plant
701 East 32 Mile Road
Romeo, MI 48065

Dear Mr. van de Kerckhof:

This letter is in reference to your Permit to Operate applications for (a) an altered and relocated industrial touch-up paint booth with two 35,000 CFM fans and an additional 10 linear feet of booth and an agricultural touch-up booth using two new 29,000 CFM fans and an additional 20 linear feet of booth, and (b) an extension to the small parts paint system including a 30,000 CFM air make up unit and 26,000 CFM of exhaust air, located at 701 East 32 Mile Road, Romeo, Michigan. These applications, identified as Nos. 1036-78 and 625-80, respectively, have been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplements.

Thank you for your cooperation. If you have any questions regarding these permits, please contact me at (517) 322-1333.

Sincerely,

Geoffrey Richardson, Engineer
Permit Unit
Air Quality Division

GR:kb
Enclosure
cc: Tom Maki

FORD ROMEO TRACTOR PLANT
EQUIPMENT SPECIFICATIONS AND PROCESS

The following listed equipment is being designed and built by Alpha-Debon Industries, 1743 Larchwood, Troy, Michigan 48084.

- Extend existing vestibule to connect the Small Parts Paint Booth and the two new prime paint booths. Booth vestibule has double acting swing doors and a roll-up door and a 2,000 CFM exhaust fan with a 30" diameter stack.

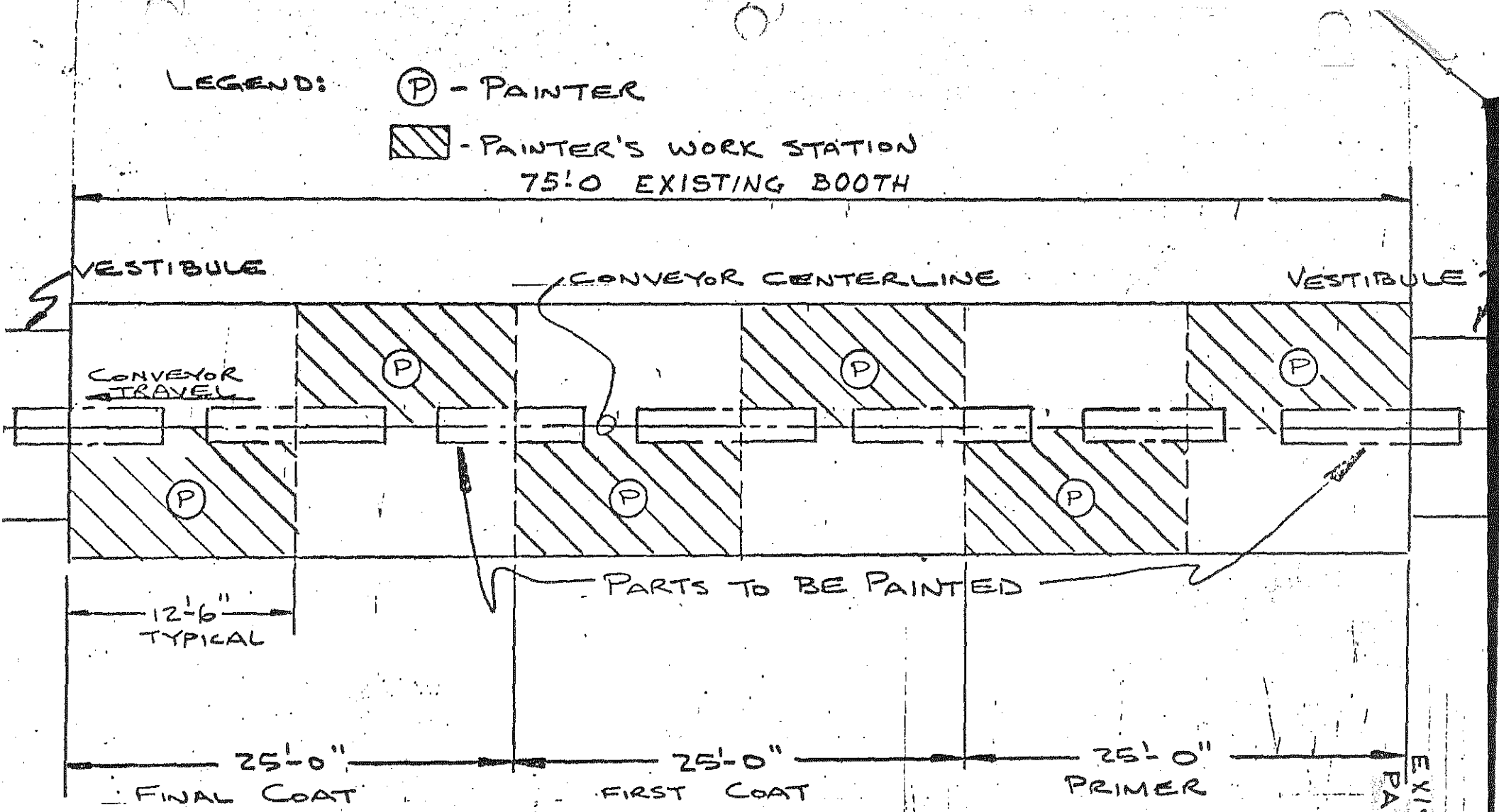
- Add (2) enclosed 12' 0" wide x 18' 0" long side draft booths - water wash type complete with 12,000 CFM exhaust fan and a 30" diameter stack.

- Add 30,000 CFM gas-heated filtered air make-up station to service the (2) side draft booths. Outside air will be filtered and used.

- Three 30" stacks will be added as noted above.

- Normal hours of operation 20 hours/day - 50 weeks/year.

7/8/80



ATTACHMENT 1
PAGE 1 OF 3
EXISTING SMALL PART PAINT BOOTH

Preparation of Form 4391

Shown below is Form 4391 to be used ONLY when Bonds are to be registered in OTHER than employe's name.

NOTE: An employe CANNOT have Bond deductions for himself/herself and another person concurrently.

Payroll Deduction Authorization for U.S. Savings Bonds
(Use Only When Bonds Are to Be Registered in Other Than Employe's Name) PRINT OR TYPE ALL INFORMATION

I authorize and direct my employer to deduct from each pay period (effective the first pay period following the receipt of this authorization by Payroll Services) the sum of $_____ (must be in multiples of 25¢) for the purchase of Series "EE" U.S. Savings Bonds in the maturity value of $_____.

☐ Salary ☐ PSR Department Number _____

☐ Hourly Badge Number or Area Code _____

Payroll Location Code _____

TYPE OF AUTHORIZATION
☐ New ☐ Change ☐ Cancellation

If change, indicate type:
☐ Owner Name ☐ Address
☐ Co-owner Name ☐ Deduction Amount
☐ Beneficiary Name ☐ Maturity Value

MATURITY VALUE SCHEDULE

Series "EE" U.S. Savings Bonds may be purchased in maturity of:

$ 50	$ 200
75	500
100	1,000

EMPLOYE NAME (Given First Name) (Middle Initial) (Last)
☐ Mr. ☐ Mrs. ☐ Miss
Social Security Number

BOND OWNER NAME (Given First Name) (Middle Initial) (Last)
☐ Mr. ☐ Mrs. ☐ Miss
Social Security Number

Mail bonds to the following address:
Number and Street
City State Zip Code

Check one: ☐ CO-OWNER ☐ BENEFICIARY (but not both)
(Given First Name) (Middle Initial) (Last)
☐ Mr. ☐ Mrs. ☐ Miss

This authorization will continue in effect until changed or cancelled by me in writing or termination of my employment. This authorization automatically cancels any prior authorization and any deducted but unexpended amount shall be applied to purchase bonds under this authorization. It is understood that no interest is to be paid by my employer on any accumulated deductions. In the event of my death, my employer will pay to the above designated owner the unexpended amount of accumulated deductions to my credit.

Employe's Signature _____ Date _____

Ind 601
Feb 00 4391 (Previous editions may NOT be used)

1) Legibility and completeness of information are MUSTS!
2) Indicate amount of deduction per pay and desired Bond maturity value.
3) Check appropriate Salary or Hourly box; complete department number or badge number/area code.
4) Fill in payroll location code.
5) Check type of authorization. If CHANGE is being made, ALSO check appropriate box to indicate type of change.
6) Complete employe's title*, name and Social Security Number.
7) Show Bond owner's title*, name (MUST BE A PERSON, NOT an institution), and Social Security Number. Forms without Social Security Number will NOT be processed.
8) Enter address to which the Bond is to be mailed.
9) Indicate co-owner OR beneficiary (NOT BOTH) of Bond. Complete name and title* of that person. If neither are wanted, write "NONE" in this area. NOTE: Bonds purchased through our Payroll Savings Plan CANNOT be made out to trusts or estates.
   WOMEN: In 6, 7 and 9, MUST use GIVEN FIRST NAME, i.e.,
   MARY L. Smith, NOT Mrs. John A. Smith
10) Sign and date completed card. Did you check for legibility, accuracy and content?

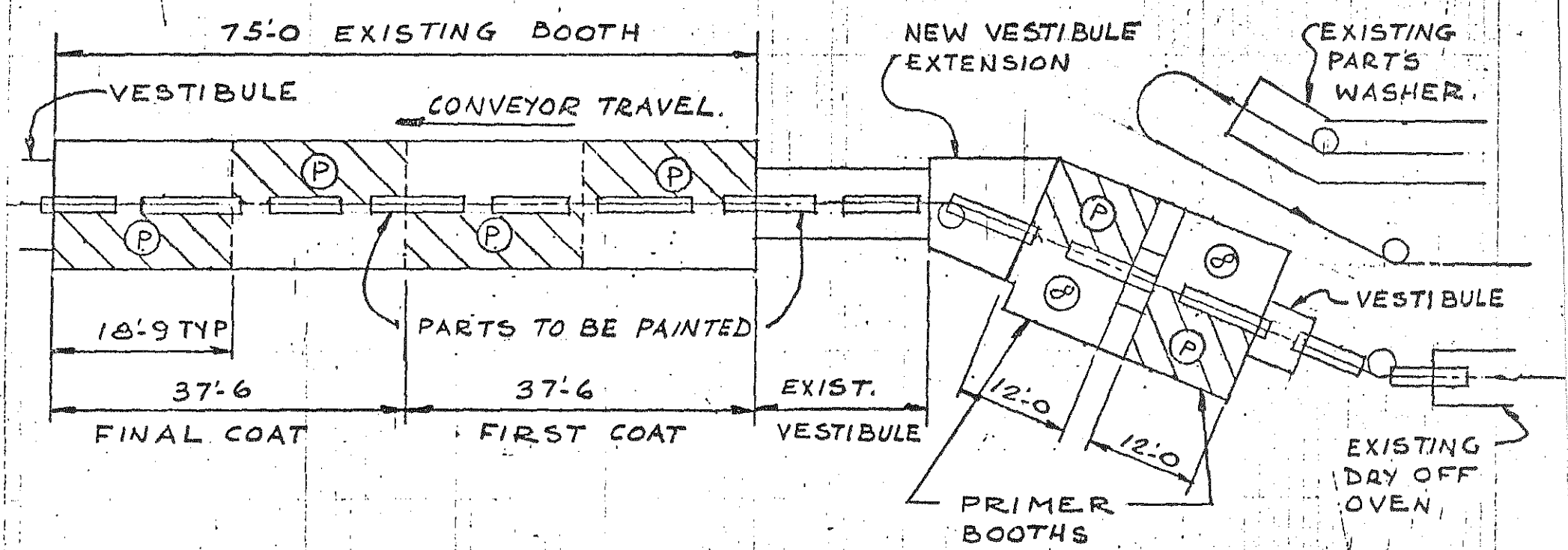
NOTE: An employe wishing to periodically designate a new owner may do so by submitting a new Form 4391 which would supersede any previous authorization.

*Social Security Numbers are used to maintain ownership records of U. S. Savings Bonds. Other information requested is used to establish the rights, authority and/or entitlement of the signers. The use of "MS." as a title is acceptable; HOWEVER, if a woman is named as co-owner or beneficiary and her Social Security Number is NOT shown, the courtesy title "Miss" or "Mrs." MUST be used.

LEGEND: (P) - PAINTER

▨ - PAINTERS WORK STATION

(∞) - EXHAUST FAN.



ATTACHMENT I
PAGE 3 OF 3
PROPOSED: TWO 12'-0
BACK DRAFT PAINT
BOOTHS (SIDE BY SIDE

Preparation of Form 4391

Shown below is Form 4391 to be used ONLY when Bonds are to be registered in OTHER than employe's name.

NOTE: An employe CANNOT have Bond deductions for himself/herself and another person concurrently.

Payroll Deduction Authorization for U.S. Savings Bonds
(Use Only When Bonds Are to Be Registered in Other Than Employe's Name) PRINT OR TYPE ALL INFORMATION

(1)

(2) I authorize and direct my employer to deduct from each pay period (effective the first pay period following the receipt of this authorization by Payroll Services) the sum of $_____ (must be in multiples of 25¢) for the purchase of Series "EE" U.S. Savings Bonds in the maturity value of $_____.

(3) ☐ Salary ☐ PSR Department Number _____
☐ Hourly Badge Number or Area Code _____

(4) Payroll Location Code _____

(5) TYPE OF AUTHORIZATION
☐ New ☐ Change ☐ Cancellation
If change, indicate type:
☐ Owner Name ☐ Address
☐ Co-owner Name ☐ Deduction Amount
☐ Beneficiary Name ☐ Maturity Value

MATURITY VALUE SCHEDULE
Series "EE" U.S. Savings Bonds may be purchased in maturity of:

$ 50	$ 200
75	500
100	1,000

(6) EMPLOYE NAME (Given First Name) (Middle Initial) (Last)
☐ Mr. ☐ Mrs. ☐ Miss
Social Security Number

(7) BOND OWNER NAME (Given First Name) (Middle Initial) (Last)
☐ Mr. ☐ Mrs. ☐ Miss
Social Security Number

(8) Mail bonds to the following address:
Number and Street
City State Zip Code

(9) Check one: ☐ CO-OWNER ☐ BENEFICIARY (but not both)
(Given First Name) (Middle Initial) (Last)
☐ Mr. ☐ Mrs. ☐ Miss

(10) This authorization will continue in effect until changed or cancelled by me in writing or termination of my employment. This authorization automatically cancels any prior authorization and any deducted but unexpended amount shall be applied to purchase bonds under this authorization. It is understood that no interest is to be paid by my employer on any accumulated deductions. In the event of my death, my employer will pay to the above designated owner the unexpended amount of accumulated deductions to my credit.
Employe's Signature _____ Date _____

End Rel Feb 80 4391 (Previous editions may NOT be used)

1) Legibility and completeness of information are MUSTS!
2) Indicate amount of deduction per pay and desired Bond maturity value.
3) Check appropriate Salary or Hourly box; complete department number or badge number/area code.
4) Fill in payroll location code.
5) Check type of authorization. If CHANGE is being made, ALSO check appropriate box to indicate type of change.
6) Complete employe's title*, name and Social Security Number.
7) Show Bond owner's title*, name (MUST BE A PERSON, NOT an institution), and Social Security Number. Forms without Social Security Number will NOT be processed.
8) Enter address to which the Bond is to be mailed.
9) Indicate co-owner OR beneficiary (NOT BOTH) of Bond. Complete name and title* of that person. If neither are wanted, write "NONE" in this area. NOTE: Bonds purchased through our Payroll Savings Plan CANNOT be made out to trusts or estates.
   WOMEN: In 6, 7 and 9, MUST use GIVEN FIRST NAME, i.e.,
   MARY L. Smith, NOT Mrs. John A. Smith
10) Sign and date completed card. Did you check for legibility, accuracy and content?

NOTE: An employe wishing to periodically designate a new owner may do so by submitting a new Form 4391 which would supersede any previous authorization.

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RECEIVED
NOV 24 1980
AIR QUALITY DIVISION

Ford Tractor Operations
Ford Motor Company

Romeo Tractor and
Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

November 19, 1980

Mr. G. Richardson, P. E.
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
Air Quality Permits
Secondary Complex
P. O. Box 30028
Lansing, Michigan 48099

Subject: Romeo Tractor & Equipment Plant's Application for Air Pollution Control Permit dated 7/11/80

Reference: Your letter dated 10/23/80, same subject

Dear Sir:

The attached chart lists the information you requested with reference to paint and solvent composition and usages per year for the existing Small Parts Paint Booth and extension.

The existing Small Parts Paint Booth has ten existing exhaust fans at approximately 10,000 C.F.M. each and one air make-up house at 120,000 CFM. The existing stacks are 30 inches in diameter, 36 feet above roof line, 10 feet above air supply house and top of stack is 62 feet above the ground level.

Your cooperation in processing the attached information will be appreciated.

D. M. Alexander,
Manager, Plant
Engineering Dept.

J. van de Kerckhof,
Plant Manager

DAH/njg
Attachment

cc J. C. Munger - Troy
A. B. M. Houston - SSECO
J. D. Rank - Romeo
T. Maki - D.N.R.

SMALL PARTS PAINT BOOTH

APPLICATION #625-80

DESCRIPTION							% V.O.C. IN LBS																		SOLVENTS ADDED % IN LBS		
RAW PAINT																											
NO	PAINT NO	TYPE	COLOR	PAINT LB/GAL	TOTAL % V.O.C. LBS	ANNUAL USAGE GAL	DIBASIC ESTER	BUTENOL	XYLENE	TOLUENE	NAPTHA	BUTYL ACETATE	METHYL ALCOHOL	METHYL AMYL KETONE	XYLENE & SILVESSO	DOWANOL DPM	HISOL	MINERAL SPIRITS	DIETHYL AMINE	HIBOILING NAPTHA	MISC. SOLVENTS	ETHYL ALCOHOL	CELLOSOLVE ACETATE	2-ETHYL HEXANOL	HISOL	XYLENE	2-ETHYL HEXANOL
⊕ 1	M50J100B M1639A	ACRYLIC BAKE ENAMEL	NEW BLUE	8.05	49.25	22,700	8.70	7.13	3.17	1.76	6.04	0.23	0.16	11.03	11.03												
2	M2J114A M1750A	ALKYD BAKE ENAMEL	GREY	9.10	49.71	4,590		8.10	36.11	0.02	0.04						3.31	0.82	0.22				1.09				
⊗ 3	M2J114A M5394A	ALKYD BAKE ENAMEL	YELLOW	9.50	49.98	22,700		1.38	34.49		8.42						0.16	0.12	0.21	5.02	0.18						
4	M6J96A PRIMER	PRIME AIR DRY	TAUPE	10.36	43.99	16,690		3.19	33.05								2.83	4.77			0.15						
5	M1J100A M1724A	ALKYD AIR DRY ENAMEL	BLACK	8.00	57.33	2,785			27.30		1.70	15.83	3.84		7.99						0.62	0.05					
⊗ 6	M2J114A M1639A	ALKYD BAKE ENAMEL	BLUE	8.16	57.13	22,700		12.08	33.81	1.63	5.73	1.44				1.72	0.22	0.17			0.33						
⊕ 7	M2J114A M5771A	ALKYD BAKE ENAMEL	NEW YELLOW	9.18	49.10	22,700		2.84	36.67	4.13	4.43						0.51		0.28		0.24						
MIXED PAINT						ANNUAL VOC LBS																					
1	M50J100B M1639A	ACRYLIC BAKE ENAMEL	NEW BLUE	7.92	64.43	115,835	8.84	7.25	3.22	1.79	6.14	0.24	0.16	11.20	11.20		10.88							3.51	10.88		3.51
2	M2J114A M1750A	ALKYD BAKE ENAMEL	GREY	8.93	59.20	24,265		8.25	38.42	0.21	0.36						9.79	0.84	0.22				1.11		6.43	1.62	
3	M2J114A M5394A	ALKYD BAKE ENAMEL	YELLOW	9.33	57.05	120,827		1.40	36.67		8.57						4.78	0.12	0.21	5.11	0.19				4.62	1.55	
4	M6J96A PRIMER	PRIME AIR DRY	TAUPE	10.13	50.71	85,735		3.26	39.52								2.89	4.89			0.15					5.73	
5	M1J100A M1724A	ALKYD AIR DRY ENAMEL	BLACK	7.88	76.61	16,813			46.12		1.73	16.07	3.89		8.12						0.63	0.05				18.40	
6	M2J114A M1639A	ALKYD BAKE ENAMEL	BLUE	7.99	76.34	138,460		12.33	38.15	1.67	5.86	1.47				1.75	14.60	0.17			0.34				14.38	3.63	
7	M2J114A M5771A	ALKYD BAKE ENAMEL	NEW YELLOW	8.85	57.44	115,394		2.95	39.67	4.29	4.60						5.39		0.29		0.25				4.86	1.64	

(617,329 TOTAL ABOVE) (358,042# ACTUAL EMISSION PER YR - 1981 = 179.02 TPY)

NOTES

⊗ WILL BE DISCONTINUED IN 1981

⊕ WILL BE ADDED IN 1981 (ESTIMATED USAGE BASED ON 1979 CONSUMPTION)

ABOVE CHART BASED ON ANNUAL PAINT USAGE IN 1979

M. LOBO 11-12-80

Lansing Permit File

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

Tom Maki	FROM: K.L. Green	APPLICATION NO. 625-80A
ESTABLISHMENT: Ford Romeo Tractor Equipment	COUNTY: Macomb	ESTABLISHMENT NO. B-2869 NEW
EQUIPMENT LOCATION: 700 E. 32 Mile Rd. Romeo	DISTRICT: Northville	DATE MM DD YY: 9 12 23 88
REGARDING: ☐ PERMIT TO INSTALL WITH SITE EVALUATION ☐ TAX EXEMPTION ☐ PERMIT TO OPERATE ☑ OTHER Void		PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

It is Recommended that permit # 625-80A be voided, As the Equipment has been Removed from the site. The company is In Aqueement.

DISCONTINUED

COMPLIANCE BRANCH RECOMMENDATIONS:

☐ INSTALLATION AND SITE APPROVAL
☐ TAX EXEMPTION APPROVAL
☐ OPERATING APPROVAL
☐ SPECIAL CONDITIONS NOTED ABOVE
☐ DENIAL AS EXPLAINED
☑ Void

NAME K.L. Green DATE 9-23-88 DISTRICT ENGINEER INITIALS

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
MARLENE J. FLUHARTY
JERRY KAMMER
STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

David F. Hales, Director
SOUTHEAST MICHIGAN FIELD OFFICE
505 W. Main Street
Northville, Michigan 48167

OCT 13 1988

Rhonda S. Berger, Environmental Engineer
FORD MOTOR COMPANY
21500 Oakland Blvd.
EEE Building
P.O. Box 2053
Dearborn, Michigan 48121-2053

Dear Ms. Berger:

This letter is to advise you that the permits for the equipment listed below and located at 700 E. 32 Mile Road in Romeo, Michigan have been voided because the equipment has been removed.

Permit Number	Equipment Description
464-73	Shot blast machine
415-73	Flame cutter machine & exhaust ventilation
391-73	Touch up booth in Modification Bldg.
293-73	(2) interrelated cylinder washers & (1) flywheel
290-73	Flat deck paint system with two-stage washer
290-73A	Revised straddle mount chassis paint system
358-81A	Revised flat deck paint booth
358-81	Flat deck paint booth
1036-78	(2) touch up paint booths
1036-78A	Revised touch-up paint & repair booth
625-80	Small parts paint system
625-80A	Revised small parts paint system
445-84	Welding smoke & fume exhaust

OCT 13 1988

Please contact me if you have any questions concerning this action.

Sincerely,

R. Thomas Maki

R.Thomas Maki
District Engineer
Air Quality Division
(313) 344-9450

KG/sh

cc: Cecil Adgers, Chief of Security
Ford Romeo Engine Plant

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO. 625-80A

AIR QUALITY DIVISION
JUL 2 - 1985
PERMIT SECTION

LF

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION APPLICATION WAS COMPLETE ON 9/30/85 Phone

for authority to construct, install or alter
and
for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO: *(Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)*
FORD MOTOR COMPANY

2 MAILING ADDRESS *(Number, Street, City or Village, Zip Code)*
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

3 EQUIPMENT OR PROCESS LOCATION *(Number, Street, City or Village, Township, Zip Code)*
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION
[X] Corporation [ ] Partnership [ ] Individual Owner [ ] Governmental Agency

5 GENERAL NATURE OF BUSINESS
TRACTOR MANUFACTURING

6 EQUIPMENT DESCRIPTION Application is hereby made for permission to construct, install or alter and to operate the following equipment

Previous Permit No. 625-80 for Small Parts Paint Booth to be revised to include the use of coatings with 3.5 pounds of VOC per gallon coating, minus water for standard color paints.

See Attachment I.

7 ESTIMATED COST Air Pollution Control Equipment $_____ Total Project $_____

8 PRESENT STATUS OF EQUIPMENT *(Check and complete applicable items)*

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started		
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) *(Permit Number)*

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof *(Title)* Plant Manager
(Signature) *(Date)* 6/27/85 *(Phone No.)* (313) 752-8225

11 DISPOSITION OF APPLICATION:
* Subject to compliance with all Commission Rules and conditions stipulated in the attached supplement.

Permit to install approved and issued on OCT 13 1988 Signature Robert Miller

Permit to operate approved and issued on _____ Signature _____

VOID

Robert Miller

MDNR USE ONLY

FORM AP-1 1M 6/75

(Instructions for completing this form are on reverse side)

RAL RESOURCES COMMISSION
OMAS J. ANDERSON
RLENE JHARTY
EPHEN V JNSMA
STEWART MYERS
VID D. OLSON
YMOND POUPORE
RRY H. WHITELEY

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

Gordon E. Guyer, Director

JAN 30 1987

Mr. Frank Partee, Principal Staff Engineer
Stationary Source Environmental Control Office
Ford Motor Company
Suite 608
15201 Century Drive
Dearborn, MI 48120

Dear Mr. Partee:

This letter is in reference to your December 4, 1986, letter to Mr. Gerald Avery regarding the transfer of ownership of the Ford Tractor Operations. You had indicated that the new owner will be Ford New Holland, Inc., and that this change will become effective January 1, 1987.

As required by the general conditions to each of these permits, please have the new owner send a letter to me indicating acceptance of these permits with conditions, and the name, address, and phone number of the appropriate contact person responsible for compliance of these processes.

When this is done, we will consider the permits, identified on the enclosed Attachment 1, to be reissued in the name of Ford New Holland, Inc. A copy of this correspondence will be placed into each of the listed permit files for this purpose.

In addition, as requested, permit No. 499-77 has been voided because the equipment has been removed.

Also, we agree that the terms and conditions of the existing consent order, identified as SIP No. 3-1985, must be complied with by Ford New Holland, Inc.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Jonathan L. Trout

Jonathan L. Trout, Chief
Southeast Permit Unit
Air Quality Division
517-373-7023

JLT:jmc
Enclosure
cc: Dennis Drake
Tom Maki

ATTACHMENT 1

ROMEO TRACTOR PLANT

Permit Number	Process Description
358-81A	Flat Deck Paint Booth
67-73	Boilers Nos. 1 and 2
1036-78A	Industrial Unit Paint Repair
464-73	Bag Dust Collector-Shot Blast Machine
290-73A	Chassis Line Paint Booth
415-73	Flame Cutters (3) Exhaust Systems
215-73	Parts-Washer, Oven, and Paint Booth
293-73	Washers (3)-2 Cylinder, 1 Flywheel
393-74	Boiler No. 3
89-76	Hydraulic Cylinder Painting System
1036-78A	Agriculture Tractor Paint Repair
625-80A	Small Parts Paint Booth
1036-78A	Touch-up Paint Repair Booth
445-84	(2) Novavent Weld Exhaust Units

FORD TRACTOR OPERATIONS GENERAL OFFICE

Permit Number	Process Description
264-81	(2) Convert Boilers to Gas

Jon
Pls handle + coord
with Dennis D Jen

AIR QUALITY DIVISION

DEC 5 - 1986

PERMIT SECTION

Environmental and Safety Engineering Staff
Ford Motor Company

Suite 608
15201 Century Drive
Dearborn, Michigan 48120

December 4, 1986

Mr. Gerald Avery, Chief
Permit Unit
Air Quality Division
Michigan Department of Natural Resources
P. O. Box 30028
Lansing, Michigan 48909

Subject: Transfer of Ownership of Air Pollution Permits
Ford Tractor Operations

Ford Motor Company plans to transfer the assets of its Ford Tractor Operations to a new, wholly owned subsidiary called Ford New Holland, Inc. This new subsidiary will take control of all currently owned Ford Tractor facilities in Michigan effective January 1, 1987. We therefore request that all air permits and a consent order be transferred to the new owner, Ford New Holland, Inc.

Attachment I contains a list of Ford Tractor Michigan facilities, their permit numbers, and a brief description of the related sources. In addition the Romeo Tractor Plant has a consent order which is identified as SIP No. 3-1985.

We thank you for your expeditious handling of this matter. If you have any questions, please contact Mr. Joseph F. Lennon at (313) 322-1227.

Very truly yours,

Frank P. Partee

Frank P. Partee
Principal Staff Engineer
Stationary Source Environmental
Control Office

ATTACHMENT I

Ford Motor Company/Ford Tractor Operations
Facility Air Pollution Permits
December, 1986

ROMEO TRACTOR PLANT

Permit Number	Source Description
1) 358-81A	Flat Deck Paint Booth
2) 67-73	Boilers Nos. 1 and 2
3) 1036-78A	Industrial Unit Paint Repair
4) 464-73	Bag Dust Collector-Shot Blast Machine
5) 290-73A	Chassis Line Paint Booth
6) 415-73	Flame Cutters (3) Exhaust Systems
7) 215-73	Parts-Washer, Oven, and Paint Booth
8) 293-73	Washers (3)-2 Cylinder, 1 Flywheel
9) 393-74	Boiler No. 3
10) 89-76	Hydraulic Cylinder Painting System
11) 1036-78A	Agriculture Tractor Paint Repair
12) 625-80A	Small Parts Paint Booth
13) 1036-78A	Touch-up Paint Repair Booth
14) 445-84	(2) Novavent Weld Exhaust Units

FORD TRACTOR OPERATIONS GENERAL OFFICE

Permit Number	Source Description
1) 264-81	(2) Convert Boilers to Gas

DETROIT TRACTOR SUPPLY DEPOT

Permit Number	Source Description
1) 499-77	(2) Pump Clean and Paint Booths*

*This permit can be voided since the operations are no longer in use and the equipment has been removed.

jfl/ford_tra.001

Copy sent to District Engineer
on NOV 6 1985

AIR QUALITY DIVISION
NOV 5 - 1985
PERMIT SECTION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
700 East 32 Mile Road
Romeo, Michigan 48065

November 1, 1985

Chief, Permit Unit
Air Quality Division
Department of Natural Resources
PO Box 30028
Lansing, MI 48907

Subject: Operating Permit Nos. 358-81A, 290-73A, 625-80A, 1036-78A - Romeo Tractor & Equipment Plant

Gentlemen:

In accordance with General Rules Part 2, R336.208(2) of the Michigan Air Pollution Control Commission, application is hereby made for operating permits for the following processes:

- Flat Deck Chassis Paint System (#358-81A)
- Straddle Mount Chassis Paint System (#290-73A)
- Small Parts Paint Line (#625-80A)
- Industrial Tractor Repair Paint Booth, Agricultural Tractor Repair Paint Booth, Touch-up Repair Paint Booth (#1036-78A)

Installation permits were approved for #358-81A on October 11, 1985 and for #290-73A, #625-80A and #1036-78A on October 18, 1985. Exisitng permits 358-81, 290-73, 625-80 and 1036-78 can be voided upon issuance of these operating permits.

Your cooperation in expediting the above operating permits would be appreciated.

Sincerely,

J. van de Kerckhof,
Plant Manager

0018g

NATURAL RESOURCES COMMISSION
THOMAS J. ANDERSON
MARLENE J. FLUHARTY
HEN V. MONSMA
EWART MYERS
DAVID D. OLSON
RAYMOND POUPORE
HARRY H. WHITELEY

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

OCT 18 1985

Mr. J. van de Kerckhof, Plant Manager
Ford Motor Company
Romeo Tractor and Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. van de Kerckhof:

This letter is in reference to your Permit to Install applications for conversions to high solids paints in your (a) Straddle Mount Chassis Paint Booth; (b) Small Parts Paint Line; and (c) Industrial Tractor Paint Repair Booth, Agricultural Tractor Paint Repair Booth, and Touch-up Paint Repair Booth, all located in the Romeo Tractor and Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan.

These applications, identified as Nos. 290-73A, 625-80A and 1036-78A, respectively, have been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplements. Please review these conditions thoroughly so that you may plan for and take the actions necessary to ensure compliance with all of these conditions. Also note that Condition No. 1 of each permit requires you to apply, in writing, for a permit to operate within 30 days after completion of construction.

You are advised that contaminants discharged to the surface waters and/or groundwaters; materials disposed of on land; hazardous waste storage, treatment, and disposal; and resource recovery facilities must be approved by other divisions of the Department of Natural Resources. For assistance to determine what approval may be required, you may contact the Department's Community Assistance Division at 517-373-8542. Additionally, your plant environment must be in compliance with all applicable requirements of the Departments of Public Health and Labor.

OCT 18 1985

Thank you for your cooperation. Please contact me if you have any questions regarding these permits.

Sincerely,

Lynn Fiedler

Lynn Fiedler, Engineer
Southeast Permit Unit
Air Quality Division
(517) 322-1333

LF:nm
Enclosure
cc: Tom Maki
File 215-73
Frank Partee

AIR QUALITY DIVISION

JUN 2 - 1985

PERMIT SECTION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

June 28, 1985

Mr. Thomas Maki,
Michigan Department of Natural Resources
Air Quality Division
15500 Sheldon Road
Northville, MI 48167

Subject: Ford Romeo Tractor and Equipment Plant
Michigan State Implementation Plan (SIP) Revision
Consent Order 3-1985

Dear Mr. Maki:

Consent Order No. 3-1985 requires submittal to Department of Natural Resources (Staff) by June 30, 1985, the method used for control of Volatile Organic Compound (VOC) emissions from the following paint booths:

- Permit No. 290-73 - Straddle Mount Chassis Paint Booth
- Permit No. 625-80 - Small Parts Paint Booth
- Permit No. 1036-78 - Industrial Tractor Paint Repair Booth
  Agricultural Tractor Paint Repair Booth
  Touch-Up Paint Repair Booth

As required by Consent Order 3-1985 Section 4.B(2), 4.C(2), 4.D(2), 4.E(2), 4.F(2), please find a copy of the applications to install <u>and</u> operate the paint systems for the following:

- Straddle Mount Chassis Paint Booth
- Small Parts Paint Booth

using high solids 3.5 pounds of VOC per gallon of standard coating minus water, as applied, based on 24 hours averaging period:

- Industrial Tractor Repair Paint Booth
- Agricultural Tractor Repair Paint Booth
- Touch-Up Repair Booth

using high solids 4.8 pounds of VOC per gallon standard coating minus water, as applied, based on 24 hours averaging period.

Standard colors, as defined in the Consent Order, are those coatings having Ford Color Numbers: 1639, 5771, 1750, 1724 and 6J96.

It has come to our attention that the present permit No. 625-80 incorrectly limits VOC emissions from the Small Parts Booth to 17.1 pounds per hour and 59.7 tons per year. Data for this booth was submitted to Mr. G. Richardson of the MDNR on November 19, 1980 and calculates to be 96.5 pounds VOC per hour and 179 tons per year. The permit does not reflect VOC data provided by the Romeo Plant in the November 19 submittal. We believe that further review by the MDNR will support the VOC emission data submitted for the permit application. We will be discussing this concern with your staff to clarify emissions from the Small Parts Booth present permit.

Mrs. L. S. Gamble, of our Stationary Source Environmental Control Office, spoke with Mr. Marwan Khuri of your staff on April 23, 1985 regarding future reporting of the coating conversion for specialty colors at these booths which will occur by December 31, 1986. It is our understanding that a letter indicating the conversion to 3.5 and 4.8 VOC for specialty colors would suffice and that an additional application would not be required. We request that this understanding be confirmed by letter from your office.

The VOC data for these processes will be submitted quarterly for your review as required by Section 5 of the Consent Order.

If you have any questions, please contact Mrs. Linda S. Gamble at (313) 594-3063.

Yours very truly,

J. van de Kerckhof,
Plant Manager

Attachments

cc: G. Avery, DNR Permit Section (Original Application)
P.O. Box 30028
Lansing, MI 48909

3163g

STATE OF MICHIGAN

AL RESOURCES COMMISSION
MAS J. ANDERSON
CAROLLO
LENE J. FI UHARTY
HEN V ISMA
TEWART ERS
MOND POUPORE
RY H. WHITELEY

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES
STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

AIR POLLUTION CONTROL COMMISSION
Lee E. Jager, Chairman
Jeanette R. Armstrong
W. Randolph Frykberg, Ph.D.
Michael I. Handley
Nicholas C. Kachman
Samuel M. McMahon, M.D.
Patricia A. Moore
Ralph E. Morrow, Ph.D.
Frank P. Partee
Dennis P. Tierney, Ph.D.

State Secondary Complex
P.O. Box 30028
Lansing, Michigan 48909
(517) 322-1330

July 2, 1985

RECEIVED
JUL 8 1985
AIR QUALITY DIVISION

Mr. C. H. Porter
Environmental and Safety Engineering
Ford Motor Company
Suite 608
15201 Century Drive
Dearborn, Michigan 48120

Dear Mr. Porter:

Enclosed is your signed copy of "Stipulation for Entry of Consent Order and Final Order, SIP No. 3-1985" for the control of volatile organic compound emissions from painting operations at the Romeo Tractor and Equipment Plant in the Village of Romeo.

This order will be forwarded to the U.S. Environmental Protection Agency for approval as a State Implementation Plan revision.

If you have any questions regarding this order, please contact our district engineer in Northville, Mr. R. Thomas Maki, at (313) 459-1940.

Sincerely,

AIR POLLUTION CONTROL COMMISSION

Mary Ann Halbeisen

Mary Ann Halbeisen
Secretary
(517) 322-1330

Enclosure

cc: R. Thomas Maki (Consent order sent 5-16-85)
Michael J. Koryto
Stewart H. Freeman

8

STATE OF MICHIGAN
DEPARTMENT OF NATURAL RESOURCES
AIR POLLUTION CONTROL COMMISSION

In the matter of administrative proceedings against FORD MOTOR COMPANY, ROMEO TRACTOR AND EQUIPMENT PLANT, a corporation organized under the laws of the State of Delaware and doing business at 701 East Thirty-Two Mile Road, Village of Romeo, County of Macomb, State of Michigan.	SIP No. 3-1985

STIPULATION FOR ENTRY OF CONSENT ORDER
AND
FINAL ORDER

This proceeding resulted from allegations by the staff of the Department of Natural Resources (hereinafter referred to as the "Staff"). The Staff alleges that the Ford Motor Company, a Delaware corporation (hereinafter referred to as the "Company"), located at 701 East Thirty-Two Mile Road, Village of Romeo, County of Macomb, State of Michigan, is emitting volatile organic compounds (VOCs) from its facilities in excess of allowable limits as established by Administrative Code 1980 AACS, R 336.1621. The Company and the Staff agree to the termination of this proceeding by entry of a Final Order by consent.

The Company and the Staff agree as follows:

1. The Company admits that the Chief of the Air Quality Division of the Department of Natural Resources is authorized by resolution of the Air Pollution Control Commission (hereinafter "Commission") adopted June 28, 1977, as agent of the Commission to enter into this Final Order by consent.

2. The Company stipulates that the Department of Natural Resources is charged with the investigation and enforcement of all orders, regulations, rules, standards and statutes of the State of Michigan concerning the emission and control of air contaminants.

3. The Company stipulates that the termination of this matter by a Final Order to be entered as a Consent Order is proper and acceptable.

4. The Company and the Staff agree that the signing of this Stipulation is for settlement purposes only and does not constitute an admission by the Company that the law has been violated. Both Staff and the Company agree that the VOC emissions from the Romeo Tractor and Equipment Plant should comply with the provisions of R 336.1621. The Company shall achieve compliance with the aforementioned regulations in accordance with the following schedule:

A. FLAT DECK CHASSIS PAINT BOOTH

(1) With the effective date of this Order and until December 31, 1984, the VOC emission rate from the Flat Deck Chassis Paint Booth shall not exceed 5.4 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period.

(2) Within 30 days of the effective date of this Order, the Company shall submit to Staff, pursuant to the Commission's rules, acceptable plans and specifications and an application for an installation permit describing the air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Flat Deck Chassis Paint Booth to obtain compliance with the Commission's rules.

(3) Within 30 days of the effective date of this Order, the Company shall submit to the Staff evidence to substantiate that the required air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Flat Deck Chassis Paint Booth have been placed on order with the manufacturer.

(4) Within 30 days of the effective date of this Order and after receiving the installation permit referred to in paragraph (2), above, the Company shall begin on-site installation of said air pollution control device(s) and/or other equipment or begin production testing of substitute coatings and notify the Staff in writing that this installation or testing has begun.

(5) Within 30 days of the effective date of this Order, the Company shall have placed in operation said air pollution control device(s) and/or other equipment and/or substitute coatings and notify the Staff in writing that the device(s) and/or equipment and/or coatings have been placed in operation.

(6) By December 31, 1984, the VOC emissions from the application of standard colors (as described in Appendix A) shall not exceed 3.5 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(7) By December 31, 1984, and until December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 3.7 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(8) By December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 3.5 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(9) If the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual baseline transfer efficiency of the existing Flat Deck Chassis Paint Booth.

(10) By December 31, 1984, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff) the actual transfer efficiency of the modified Flat Deck Chassis Paint Booth.

B. STRADDLE MOUNT CHASSIS PAINT BOOTH

(1) With the effective date of this order and until December 31, 1985, the VOC emission rate from the Straddle Mount Chassis Paint Booth shall not exceed 5.2 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period.

(2) By June 30, 1985, the Company shall submit to Staff, pursuant to the Commission's rules, acceptable plans and specifications and an application for an installation permit describing the air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Straddle Mount Chassis Paint Booth to obtain compliance with the Commission's rules.

(3) By August 31, 1985, the Company shall submit to the Staff evidence to substantiate that the required air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Straddle Mount Chassis Paint Booth have been placed on order with the manufacturer .

(4) By September 30, 1985, and after receiving the installation permit referred to in paragraph (2), above, the Company shall begin on-site installation of said air pollution control device(s) and/or other equipment or begin production testing of substitute coatings and notify the Staff in writing that this installation or testing has begun.

(5) By November 30, 1985, the Company shall have placed in operation said air pollution control device(s) and/or other equipment and/or substitute coatings and notify the Staff in writing that the device(s) and/or equipment and/or coatings have been placed in operation.

(6) By December 31, 1985, the VOC emissions from the application of standard colors (as described in Appendix A) shall not exceed 3.5 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period, or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(7) By December 31, 1985 and until December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 4.3 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(8) By December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 3.5 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period, or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(9) If the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual baseline transfer efficiency of the existing Straddle Mount Chassis Paint Booth.

(10) By December 31, 1985, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual transfer efficiency of the modified Straddle Mount Chassis Paint Booth.

C. SMALL PARTS PAINT BOOTH

(1) With the effective date of this Order and until December 31, 1985, the VOC emission rate from the Small Parts Paint Booth shall not exceed 5.3 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period.

(2) By June 30, 1985, the Company shall submit to Staff, pursuant to the Commission's rules, acceptable plans and specifications and an application for an installation permit describing the air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Small Parts Paint Booth to obtain compliance with the Commission's rules.

(3) By August 31, 1985, the Company shall submit to the Staff evidence to substantiate that the required air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Small Parts Paint Booth have been placed on order with the manufacturer.

(4) By September 30, 1985, and after receiving the installation permit referred to in paragraph (2), above, the Company shall begin on-site installation of said air pollution control device(s) and/or other equipment or begin production testing of substitute coatings and notify the Staff in writing that this installation or testing has begun.

(5) By November 30, 1985, the Company shall have placed in operation said air pollution control device(s) and/or other equipment and/or substitute coatings and notify the Staff in writing that the device(s) and/or equipment and/or coatings have been placed in operation.

(6) By December 31, 1985, the VOC emissions from the application of standard colors (as described in Appendix A) shall not exceed 3.5 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period, or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(7) By December 31, 1985 and until December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 4.3 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(8) By December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 3.5 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period, or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(9) If the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual baseline transfer efficiency of the existing Small Parts Paint Booth.

(10) By December 31, 1985, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual transfer efficiency of the modified Small Parts Paint Booth.

D. INDUSTRIAL TRACTOR PAINT REPAIR BOOTH

(1) With the effective date of this Order and until December 31, 1985, the VOC emission rate from the Industrial Tractor Paint Repair Booth shall not exceed 5.9 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period.

(2) By June 30, 1985, the Company shall submit to Staff, pursuant to the Commission's rules, acceptable plans and specifications and an application for an installation permit describing the air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Industrial Tractor Paint Repair Booth to obtain compliance with the Commission's rules.

(3) By August 31, 1985, the Company shall submit to the Staff evidence to substantiate that the required air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Industrial Tractor Paint Repair Booth have been placed on order with the manufacturer.

(4) By September 30, 1985, and after receiving the installation permit referred to in paragraph (2), above, the Company shall begin on-site installation of said air-pollution control device(s) and/or other equipment or begin production testing of substitute coatings and notify the Staff in writing that this installation or testing has begun.

(5) By November 30, 1985, the Company shall have placed in operation said air-pollution control device(s) and/or other equipment and/or substitute coatings and notify the Staff in writing that the device(s) and/or equipment and/or coatings have been placed in operation.

(6) By December 31, 1985, the VOC emissions from the application of standard colors (as described in Appendix A) shall not exceed 4.8 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(7) By December 31, 1985 and until December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 5.2 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(8) By December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 4.8 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(9) If the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual baseline transfer efficiency of the existing Industrial Tractor Paint Repair Booth.

(10) By December 31, 1985, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual transfer efficiency of the modified Industrial Tractor Paint Repair Booth.

E. AGRICULTURAL TRACTOR PAINT REPAIR BOOTH

(1) With the effective date of this Order and until December 31, 1985, the VOC emission rate from the Agricultural Tractor Paint Repair Booth shall not exceed 5.4 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period.

(2) By June 30, 1985, the Company shall submit to Staff, pursuant to the Commission's rules, acceptable plans and specifications and an application for an installation permit describing the air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Agricultural Tractor Paint Repair Booth to obtain compliance with the Commission's rules.

(3) By August 31, 1985, the Company shall submit to the Staff evidence to substantiate that the required air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Agricultural Tractor Paint Repair Booth have been placed on order with the manufacturer.

(4) By September 30, 1985, and after receiving the installation permit referred to in paragraph (2), above, the Company shall begin on-site installation of said air pollution control device(s) and/or other equipment or begin production testing of substitute coatings and notify the Staff in writing that this installation or testing has begun.

(5) By November 30, 1985, the Company shall have placed in operation said air pollution control device(s) and/or other equipment and/or substitute coatings and notify the Staff in writing that the device(s) and/or equipment and/or coatings have been placed in operation.

(6) By December 31, 1985, the VOC emissions from the application of standard colors (as described in Appendix A) shall not exceed 4.8 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(7) By December 31, 1985 and unitl December 31, 1986, the VOC emissions from the application of standard and specialty colors (as described in Appendix A) shall not exceed 5.0 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(8) By December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 4.8 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval fo the Commission.

(9) By June 30, 1985, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual baseline transfer efficiency of the existing Agricultural Tractor Paint Repair Booth.

(10) By December 31, 1985, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual transfer efficiency of the modified Agricultural Tractor Paint Repair Booth.

F. TOUCH-UP PAINT REPAIR BOOTH

(1) With the effective date of this Order and until December 31, 1985, the VOC emission rate from the Touch-Up Paint Repair Booth shall not exceed 5.4 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period.

(2) By June 30, 1985, the Company shall submit to Staff, pursuant to the Commission's rules, acceptable plans and specifications and an application for an installation permit describing the air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Touch-Up Paint Repair Booth to obtain compliance with the Commission's rules.

(3) By August 31, 1985, the Company shall submit to the Staff evidence to substantiate that the required air pollution control device(s) and/or other equipment and/or coating substitutions to be used to control the VOC emissions from the Touch-Up Paint Repair Booth have been placed on order with the manufacturer.

(4) By September 30, 1985, and after receiving the installation permit referred to in paragraph (2), above, the Company shall begin on-site installation of said air pollution control device(s) and/or other equipment or begin produciton testing of substitute coatings and notify the Staff in writing that this installation or testing has begun.

(5) By November 30, 1985, the Company shall have placed in operation said air pollution control device(s) and/or other equipment and/or substitute coatings and notify the Staff in writing that the device(s) and/or equipment and/or coatings have been placed in operation.

(6) By December 31, 1985, the VOC emissions from the application of standard colors (as described in Appendix A) shall not exceed 4.8 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(7) By December 31, 1985 and until December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 5.2 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(8) By December 31, 1986, the VOC emissions from the application of all standard and specialty colors (as described in Appendix A) shall not exceed 4.8 pounds of VOC per gallon of coating, minus water, as applied, based on a 24-hour averaging period or an equivalent limit expressed in pounds of VOC per gallon of solids applied, subject to the approval of the Commission.

(9) If the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual baseline transfer efficiency of the existing Touch-Up Paint Repair Booth.

(10) By December 31, 1985, if the Company elects to apply for an equivalent emission limit expressed in pounds of VOC per gallon of solids applied, then the Company shall determine, by testing (conducted according to procedures approved by Staff), the actual transfer efficiency of the modified Touch-Up Paint Repair Booth.

5. After March 31, 1985, and quarterly thereafter, the Company shall submit to Staff a report demonstrating compliance with the VOC emission limits specified in 4.A through F above. The reports shall be submitted within 30 days following the end of the calendar quarter in which the data was collected and shall be in a format acceptable to the Staff. The Company shall also obtain information and keep records necessary for determination of the VOC emission rates of all operations subject to the provisions of R 336.1621.

6. The Company may achieve compliance with the emission limits specified in Sections 4.A through 4.F, above, by an alternative compliance program which meets the requirements of R 336.1603(4). Such an alternative compliance program shall be subject to the approval of the Commission as an alteration to this Consent Decree.

7. The Company and Staff agree that this Consent Order and Final Order shall be submitted to the United States Environmental Protection Agency as part of the Michigan State Implementation Plan (SIP) revisions in accordance with Part D, Section 171, et. seq., of the Federal Clean Air Act, as amended in 1977.

8. The Staff and the Company do not regard this abatement program as a variance subject to the 12-month limitation specified in Section 22 of the Air Pollution Act, being MCLA 336.32. Approval of this abatement program is not a major state action for purposes of further environmental review pursuant to Executive Order 1974-4.

9. Staff and the Company both acknowledge that a public hearing on this abatement program was held on January 15, 1985. Both Staff and the Company consent to enforcement of this Stipulation and Final Order in the same manner and by the same procedures for all final orders entered pursuant to Section 16 of 1972 PA 257, MCLA 336.26, including enforcement pursuant to 1970 PA 127, MCLA 691.1201 et. seq.; MSA 14.528(201) et. seq.

Approved as to Form and Content:

FORD MOTOR COMPANY

Dated 3-11-85

D. F. Jolliffe
Assistant Secretary

Approved as to Content:

Robert P. Miller, Chief
AIR QUALITY DIVISION
DEPARTMENT OF NATURAL RESOURCES

Dated: 3/25/85

Approved as to Form:

Stewart H. Freeman
Assistant Attorney General
DEPARTMENT OF ATTORNEY GENERAL

Dated: March 25, 1985

FINAL ORDER

This Commission having had opportunity to review the above stated Stipulation for Entry of Consent Order, and this Commission having authorized the Chief of the Air Quality Division of the Department of Natural Resources as agent of the Commission to enter into consent orders,

IT IS ORDERED that this Consent Order shall be entered in the record of this Commission as stated herein.

AIR POLLUTION CONTROL COMMISSION

By: Robert Miller

Robert P. Miller, Chief
Air Quality Division
Department of Natural Resources

Dated: 3/28/85

APPENDIX A

DEFINITION OF STANDARD AND SPECIALTY COLORS

Standard colors, as referenced in paragraphs 4.A(6), 4.A(7), 4.A(8), 4.B(6), 4.B(7), 4.B(8), 4.C(6), 4.C(7), 4.C(8), 4.D(60), 4.D(7), 4.D(8), 4.E(6), 4.E(7), 4.E(8), 4.F(6), 4.F(7) and 4.F(8), are defined as those colors listed by Ford Color Number:

Ford Color Number[1]	Color
1639	Blue
5771	Yellow
1750	Gray
1724	Black
6J96	Primer

Specialty colors, as referenced in paragraphs 4.B(7) and 4.C(7), are defined as those colors with Ford Color Numbers other than those listed above under the definition of standard colors.

[1]Color Numbers refer to both alkyd and acrylic enamel coatings.

Lansing Permit File

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

PERMIT ACTIVITY REPORT

TOM MAKI	FROM: K.L. Green	APPLICATION NO. 1036-78A
ESTABLISHMENT: Ford Romeo Tractor Equipment	COUNTY: MACOMB	ESTABLISHMENT NO. B-2869 NEW
EQUIPMENT LOCATION: 700 E. 32 Mile Rd. Romeo	DISTRICT: Northville	DATE MM DD YY: 9 12/23/88
REGARDING: ☐ PERMIT TO INSTALL WITH SITE EVALUATION ☐ TAX EXEMPTION ☐ PERMIT TO OPERATE ☑ OTHER Void		PLEASE REPLY BY

PERMIT ENGINEER COMMENTS:

COMPLIANCE BRANCH REMARKS:

It is Recommended that permit # 1036-78A be voided, As the Equipment has been Removed from the site. The company is In Aqueement.

STREAMLINED

COMPLIANCE BRANCH RECOMMENDATIONS:

☐ INSTALLATION AND SITE APPROVAL
☐ TAX EXEMPTION APPROVAL
☐ OPERATING APPROVAL
☐ SPECIAL CONDITIONS NOTED ABOVE
☐ DENIAL AS EXPLAINED
☑ Void

NAME K.L. Green DATE 9-23-88 DISTRICT ENGINEER INITIALS

DISTRIBUTION: White — Division Office; Canary — Permit File; Pink — District Office; Goldenrod — Temporary Permit Copy

R 5600-1

AIR QUALITY DIVISION
MICHIGAN DEPARTMENT OF NATURAL RESOURCES
P.O. BOX 30028, LANSING, MICHIGAN 48909

APPLICATION NO. 1036-78A

APPLICATION WAS COMPLETE AIR QUALITY DIVISION
ON 9/30/85 Phone

JUL 2 - 1985

PERMIT SECTION

LF

APPLICATION TO THE AIR POLLUTION CONTROL COMMISSION

for authority to construct, install or alter

and

for permit to operate process, fuel burning, refuse burning and/or air pollution control equipment

1 PERMIT TO BE ISSUED TO: (Business License Name of Corporation, Partnership, Individual Owner, Governmental Agency)
FORD MOTOR COMPANY

2 MAILING ADDRESS: (Number, Street, City or Village, Zip Code)
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

3 EQUIPMENT OR PROCESS LOCATION (Number, Street, City or Village, Township, Zip Code)
ROMEO TRACTOR & EQUIPMENT PLANT, 701 E. 32 MILE ROAD, ROMEO, MICHIGAN 48065

4 TYPE OF ORGANIZATION: ☒ Corporation ☐ Partnership ☐ Individual Owner ☐ Governmental Agency

5 GENERAL NATURE OF BUSINESS:
TRACTOR MANUFACTURING

6 EQUIPMENT DESCRIPTION: Application is hereby made for permission to construct, install or alter and to operate the following equipment

Previous Permit No. 1036-78 for Industrial Tractor Paint Repair Booth, Agricultural Tractor Paint Repair Booth and Touch-Up Paint Repair Booth to be revised to include the use of coatings with 4.8 pounds of VOC per gallon coatings minus water for standard color paints.

See Attachment I.

7 ESTIMATED COST: Air Pollution Control Equipment $ _____ Total Project $ _____

8 PRESENT STATUS OF EQUIPMENT: (Check and complete applicable items)

	Estimated Starting Date	Estimated Completion Date
( ) Construction or installation not started		
( ) Construction or installation partly completed		
( ) Construction completed		
( ) Equipment is to be altered		
( ) Equipment is partly altered		
( ) Equipment has been altered		
( ) Change of location and/or ownership		

9 NAME OF PRIOR OWNER AS IN (1) ABOVE, AND PRIOR AIR POLLUTION CONTROL PERMIT NUMBER, IF ANY:
(Name) (Permit Number)

10 TYPE OR PRINT NAME AND TITLE OF OWNER OR AUTHORIZED MEMBER OF FIRM:
(Name) J. van de Kerckhof (Title) Plant Manager
(Signature) [signature] for (Date) 6/27/85 (Phone No.) (313) 752-8225

11 DISPOSITION OF APPLICATION:

OCT 13 1988

OCT 1 3 1985

VOID

* Subject to compliance with all Commission Rules and conditions stipulated in the attached supplement.

Permit to install approved and issued on _____ Signature Robert Miller

Permit to operate approved and issued on _____ Signature _____

Robert Miller

MDNR USE ONLY

FORM AP-1 1M 6/73

(Instructions for completing this form are on reverse side)

RAL RES' 'CES COMMISSION
)MAS J ERSON
RLENE J. . LUHARTY
:PHEN V. MONSMA
STEWART MYERS
VID D. OLSON
YMOND POUPORE
RRY H. WHITELEY

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

Gordon E. Guyer, Director

JAN 30 1987

Mr. Frank Partee, Principal Staff Engineer
Stationary Source Environmental Control Office
Ford Motor Company
Suite 608
15201 Century Drive
Dearborn, MI 48120

Dear Mr. Partee:

This letter is in reference to your December 4, 1986, letter to Mr. Gerald Avery regarding the transfer of ownership of the Ford Tractor Operations. You had indicated that the new owner will be Ford New Holland, Inc., and that this change will become effective January 1, 1987.

As required by the general conditions to each of these permits, please have the new owner send a letter to me indicating acceptance of these permits with conditions, and the name, address, and phone number of the appropriate contact person responsible for compliance of these processes.

When this is done, we will consider the permits, identified on the enclosed Attachment 1, to be reissued in the name of Ford New Holland, Inc. A copy of this correspondence will be placed into each of the listed permit files for this purpose.

In addition, as requested, permit No. 499-77 has been voided because the equipment has been removed.

Also, we agree that the terms and conditions of the existing consent order, identified as SIP No. 3-1985, must be complied with by Ford New Holland, Inc.

If you have any further questions, please do not hesitate to contact me.

Sincerely,

Jonathan L. Trout

Jonathan L. Trout, Chief
Southeast Permit Unit
Air Quality Division
517-373-7023

JLT:jmc
Enclosure
cc: Dennis Drake
Tom Maki

R1026

NATURAL RESOURCES COMMISSION
T[illegible]S J. ANDERSON
[illegible]NE J. FLUHARTY
S[illegible]HEN V. MONSMA
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE
HARRY H. WHITELEY

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

OCT 18 1985

Mr. J. van de Kerckhof, Plant Manager
Ford Motor Company
Romeo Tractor and Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

Dear Mr. van de Kerckhof:

This letter is in reference to your Permit to Install applications for conversions to high solids paints in your (a) Straddle Mount Chassis Paint Booth; (b) Small Parts Paint Line; and (c) Industrial Tractor Paint Repair Booth, Agricultural Tractor Paint Repair Booth, and Touch-up Paint Repair Booth, all located in the Romeo Tractor and Equipment Plant, 701 East 32 Mile Road, Romeo, Michigan.

These applications, identified as Nos. 290-73A, 625-80A and 1036-78A, respectively, have been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Air Pollution Control Commission.

This approval is based upon and subject to compliance with all administrative rules of the Commission and conditions stipulated in the attached supplements. Please review these conditions thoroughly so that you may plan for and take the actions necessary to ensure compliance with all of these conditions. Also note that Condition No. 1 of each permit requires you to apply, in writing, for a permit to operate within 30 days after completion of construction.

You are advised that contaminants discharged to the surface waters and/or groundwaters; materials disposed of on land; hazardous waste storage, treatment, and disposal; and resource recovery facilities must be approved by other divisions of the Department of Natural Resources. For assistance to determine what approval may be required, you may contact the Department's Community Assistance Division at 517-373-8542. Additionally, your plant environment must be in compliance with all applicable requirements of the Departments of Public Health and Labor.

OCT 18 1985

Thank you for your cooperation. Please contact me if you have any questions regarding these permits.

Sincerely,

Lynn Fiedler

Lynn Fiedler, Engineer
Southeast Permit Unit
Air Quality Division
(517) 322-1333

LF:nm
Enclosure
cc: Tom Maki
File 215-73
Frank Partee

PERMIT EVALUATION SHEET

Application No. 1036-78A

E. I. No. B2869

Const. Commenced? Yes (Reg. Egr. notified) (No)

NSPS? Yes (Coord. notified) (No)

WQD notified? Yes (No)

RRD notified? Yes (No)

Other

NESHAPS? Yes (Coord. notified) (No)

Source Description (Installation date APRIL 1973) (Covered by Permit No. 1036-78)

CONVERION TO HIGH SOLIDS PAINTS - REQUIRED BY CONSENT ORDER 3-1985

THREE TOUCH-UP BOOTHS

1 - INDUSTRIAL TRACTORS 70,000 CFM

2 - AGRICULTURAL TRACTORS

3 - FINAL TOUCH-UP 58,000 CFM

Control Description DRY FILTER

Attainment Status	TSP	SO_2	CO	O_3
Attainment				
Non Attainment				A

P - Primary S - Secondary
A - All Standards U - Unclassified
* Close to Non attainment

	Plant Totals (TPY)			Equipment covered by this permit					
	Potential	Δ Pot. (5 years)	Allowed 12-21-76	Uncon. PPH	Expected PPH	Expected TPY	Allowable PPH	Allowable TPY	Limit
TSP									
SO_2									
CO									
NO_x									
VOC	12/31/85 - 12/31/86			<43	<43.0	<66.0	43.0	66.0	4.8 #/gal
	AFTER 12/31/86			<41	<41.0	<62.0	41.0	62.0	4.8 #/gal - 11.0

Basis for Recommendation; Comments

REDUCTION REQUIRED BY CONSENT ORDER.

BACT IS HIGH SOLIDS & METHODS USED

EMISSIONS SHOULD BE ENVIR. ACCEPTABLE

EMISSIONS WILL BE FURTHER REDUCED IN 1987.

EOP? Yes (No) Emissions Logged? Yes (No) PSD? Yes (No) PCDS? Yes (No?)

NO INCREASE - ACTUAL DECREASE

Reviewed by: Lynn Fiedler Date: 7/5/85

..oduction Rate ☐ Confidential Normal _____ Maximum _____

Normal Operating Schedule ☐ Confidential Hours/Day ____ Days/Wk ____ Wks/Year ____

Maximum Allowable Operating Schedule Hours/Day 10 Days/Wk 6 Wks/Yr 50

Fuel type	Usage	Heat Content	% Sulfur	% Ash
NA				

Collector Bypass Yes (No) Reasons - Conditions _____

Process/Control Waste and Disposal DISPOSED OF PROPERLY

Stack, Building & Dispersion Paramaters

$\frac{46}{26} = \frac{x}{20}$ x=35

≅ 128,000 CFM STACKS APPROX 46' FROM 358-81A

BLDG 26' ASSUME 30' $\frac{30}{26} = \frac{x}{20}$ x=23

500'+ TO PROP LINE 358-81A

Dispersion (Yes) No Comments:

$\frac{3}{30}(1064936-568209)1568209$

= 617882

dil 8hr = $\frac{617882}{\frac{180 \times 128000}{2 \times 9}}$ = 60 dil

dil ANNUAL $\frac{617882}{\frac{10 \times 128000}{2 \times 19}}$ = 1023 dil

Emission Calculations

LIMIT FOR PERIOD 12/31/85 - 12/31/86

4.8 #/gal COATING MINUS Water 24-HR AVE. 43 PPH & 66 TPY → 90 $\frac{mg}{m^3}$

LIMIT AFTER DEC. 31, 1986

4.8 #/gal coating minus water 24 hr ave 41 PPH & 62 TPY → 86 $\frac{mg}{m^3}$

$\frac{90 \frac{mg}{m^3}}{60 \text{ dil}} \times 100 = 150 \frac{mg}{m^3}$ TLV That can be met by all VOC

$\frac{90 \frac{mg}{m^3}}{1023 \text{ dil}} / 8.17 \times 10^{-6} = 10839 \frac{mg}{kg}$ LD_{50} that can be met

TYPICAL SOLVENTS MUCH HIGHER THAN THIS ok

Permit No. 1036-78
Attachment I
June 28, 1985

Ford Romeo Tractor and Equipment Plant
Air Permit Application
Industrial Tractor Paint Repair Booth
Agricultural Tractor Paint Repair Booth
Touch-Up Paint Repair Booth

Approval of this application to install and operate the Industrial Tractor Paint Repair Booth, Agricultural Tractor Paint Repair Booth and Touch-Up Paint Repair Booth is requested based upon use of high solids standard color coatings. Consent Order 3-1985 Sections 4.D(2), 4.E(2) and 4.F(2) requires submittal of this application.

These (3) paint systems are presently permitted under Permit No. 1036-78. All drawings and specifications associated with the approved permit are applicable to this permit application since only the high solid standard color coatings have been changed. Standard colors, as defined in the Consent Order, are those coatings having Ford Color Numbers 1639, 5771, 1750, 1724 and 6J96.

Present Emissions - The present permit limits the total VOC emissions for the (3) paint booths to 59.5 pounds/hour VOC and 68.75 tons per year.

Interim Emissions

Section 4.D(7), 4.E(7) and 4.F(7) of the Consent Order limits process emissions of the Industrial Tractor Paint Repair Booth, Agricultural Tractor Paint Repair Booth and Touch-Up Paint Repair Booth to 5.2, 5.0, 5.2 pounds of VOC per gallon, respectively, from December 31, 1985 until December 31, 1986. Total emissions from the (3) booths during the interim time will be 43 pounds VOC per hour and 66 tons per year. This will be obtained by use of 4.8 pounds VOC per gallon coating, minus water for standard color coatings, based on 24-hour averaging.

Final Emissions

Section 4.D(8), 4.E(8), 4.F(8) of the Consent Order limits process emissions after December 31, 1986 to 4.8 pounds/gallon VOC for standard and specialty color coatings. Total emissions from the (3) booths will be 41 pounds VOC per hour and 62 tons per year. This will be obtained by the conversion of specialty colors to 4.8 pounds VOC per gallon coating, minus water, based on 24-hour averaging.

3163g

- Industrial Tractor Repair Paint Booth
- Agricultural Tractor Repair Paint Booth
- Touch-Up Repair Booth

using high solids 4.8 pounds of VOC per gallon standard coating minus water, as applied, based on 24 hours averaging period.

Standard colors, as defined in the Consent Order, are those coatings having Ford Color Numbers: 1639, 5771, 1750, 1724 and 6J96.

It has come to our attention that the present permit No. 625-80 incorrectly limits VOC emissions from the Small Parts Booth to 17.1 pounds per hour and 59.7 tons per year. Data for this booth was submitted to Mr. G. Richardson of the MDNR on November 19, 1980 and calculates to be 96.5 pounds VOC per hour and 179 tons per year. The permit does not reflect VOC data provided by the Romeo Plant in the November 19 submittal. We believe that further review by the MDNR will support the VOC emission data submitted for the permit application. We will be discussing this concern with your staff to clarify emissions from the Small Parts Booth present permit.

Mrs. L. S. Gamble, of our Stationary Source Environmental Control Office, spoke with Mr. Marwan Khuri of your staff on April 23, 1985 regarding future reporting of the coating conversion for specialty colors at these booths which will occur by December 31, 1986. It is our understanding that a letter indicating the conversion to 3.5 and 4.8 VOC for specialty colors would suffice and that an additional application would not be required. We request that this understanding be confirmed by letter from your office.

The VOC data for these processes will be submitted quarterly for your review as required by Section 5 of the Consent Order.

If you have any questions, please contact Mrs. Linda S. Gamble at (313) 594-3063.

Yours very truly,

J. van de Kerckhof,
Plant Manager

Attachments

cc: G. Avery, DNR Permit Section (Original Application)
P.O. Box 30028
Lansing, MI 48909

3163g

AIR QUALITY DIVISION

JUN 2 - 1985

PERMIT SECTION

Ford Motor Company
Ford Tractor Operations

Romeo Tractor and
Equipment Plant
701 East 32 Mile Road
Romeo, Michigan 48065

June 28, 1985

Mr. Thomas Maki,
Michigan Department of Natural Resources
Air Quality Division
15500 Sheldon Road
Northville, MI 48167

Subject: Ford Romeo Tractor and Equipment Plant
Michigan State Implementation Plan (SIP) Revision
Consent Order 3-1985

Dear Mr. Maki:

Consent Order No. 3-1985 requires submittal to Department of Natural Resources (Staff) by June 30, 1985, the method used for control of Volatile Organic Compound (VOC) emissions from the following paint booths:

.Permit No. 290-73	-	Straddle Mount Chassis Paint Booth
.Permit No. 625-80	-	Small Parts Paint Booth
.Permit No. 1036-78	-	Industrial Tractor Paint Repair Booth Agricultural Tractor Paint Repair Booth Touch-Up Paint Repair Booth

As required by Consent Order 3-1985 Section 4.B(2), 4.C(2), 4.D(2), 4.E(2), 4.F(2), please find a copy of the applications to install and operate the paint systems for the following:

- Straddle Mount Chassis Paint Booth
- Small Parts Paint Booth

using high solids 3.5 pounds of VOC per gallon of standard coating minus water, as applied, based on 24 hours averaging period:

State of Michigan
Department of Natural Resources
Water Resources Commission

DISCHARGE PERMIT APPLICATION

(Please print or type all information)

Section 1. Applicant and Facility Description — unless otherwise specified on this form, all items are to be completed. If an item is not applicable, indicate "NA."

1. **Legal Name of Applicant:**

Ford Motor Company

2. **Mailing Address of Applicant:**

number & street: One Parklane Boulevard, Suite 628W

city: Dearborn state: MI zip code: 48126 phone: 313 (area code) 594-0324 (number)

3. **Applicant's Authorized Agent for further correspondence:**

name & title: A. B. M. Houston, Manager, Compliance & Liaison Department

number & street: One Parklane Boulevard, Suite 628W

city: Dearborn state: MI zip code: 48126

telephone: area code 313 number 594-0324

4. Facility/Activity: give name, ownership and physical location of the plant or other operating facility where discharge(s) does or will occur.

name: Romeo Tractor & Equipment Plant

ownership: ____ sole owner; x corporation; Delaware state in which incorporation filed;

____ partnership; ____ governmental unit; ____ nonprofit organization.

location:

street & number: 701 E. 32 Mile Road

city: Romeo 48065 township: Bruce

county: Macomb ; town: T-4-N range: R-12-E section: 1

I certify that I am familiar with the information contained in this application, and to the best of my knowledge and belief, such information is true, complete and accurate. Submitted in accordance with Section 8 (b), Act 245, Public Acts of 1929, as amended.

Signature of Applicant	Date	If Partnership, Signature of Co-Owner	Date
[signature]			

Print or Type Applicant's Name & Title	Print or Type Co-Owner's Name
M. H. Manning, Vice President & General Manager Ford Tractor Operations	

R4838

NOTE: If sanitary sewage is to be discharged from housing developments, apartment buildings, shopping centers, or other commercial developments, into a system other than an approved municipal sanitary waste collection system, the following ıld be completed and signed by an authorized municipal official or township officer.

It is the policy of the Commission that applications involving the disposal of sewage of human origin from any entity other than local government include the local government as a co-signer of the statement, and that all proceedings and hearings against said entity will include the local unit of government as a party by appropriate notice, and all permits issued as a result of such hearings and proceedings will be jointly against the said unit and entity.

Signature of Authorized Local Government Representative: N/A

Mailing Address of Local Government Representative: _____

Print or Type Name of Local Government Representative: N/A

5. **Nature of Business:** describe the nature of the business or manufacturing process conducted at the plant or operating facility.

The assembly of agricultural and industrial tractors, and the fabrication of front end loaders, backhoes and hydraulic cylinders for the tractors.

6. **Source of Water Supply:** indicate average water intake volume per day by sources

municipal — name	Village of Romeo (Detroit Water)	220,000 gallons per day
surface water intake — name		_____ gallons per day
private-well		_____ gallons per day
other (specify)		_____ gallons per day

7. **Facility Water Usage:** average volume in gallons per day for the following types of water usage at the facility.

process water (including contact cooling water)		92,000 gallons per day
noncontact cooling water		53,000 gallons per day
sanitary water (number of people served)	1,600	75,000 gallons per day
other (specify)		_____ gallons per day
total		220,000 gallons per day

8. **Facility Discharges:** specify number of discharge points and the volume of water discharged or used from the facility according to the categories below.

	number of discharge points	total volume used or discharged — gal/day
surface water	1	53,000 plus stormwater plus groundwater infiltration
municipal sanitary sewer	2	167,000
municipal storm sewer		
groundwater —		
a. land application		
b. percolation system		
well injection		
other (specify)		
total	3	220,000 plus stormwater plus groundwater infiltration

9. **Discharge Locations:** provide a drawing or map of the facility showing each point of discharge listed in item 8. Label each discharge with the appropriate three digit serial number assigned in Section II, 1 (a).

10. **Pollution Incident Prevention Plan:** has your facility submitted a Pollution Incident Prevention Plan?

yes X no ____ original date submitted 11/19/73 date fully implemented 11/19/73

11. **Critical Materials** a/

a. **usage:** This application contains a list of critical materials. Please indicate the amount of these materials used in, produced in, or are incidental to your operation.

name	amount lbs/yr.	name	amount lbs/yr.
Antimony	1 - 10	Zinc	101-500
Benzene	1,001 - 10,000		
Chromium	1,001 - 10,000		
Cobalt	1 - 10		
Cyanides	0 - 1		
Lead	40,000		

a/ As reported in "1980 Critical Materials Report".

Section II Basic Discharge Description
(Please print or type all information)

Complete this section for each discharge indicated in Section 1, Item 8, except those discharges which enter a municipal sanitary sewer. Separate descriptions of each discharge are required even if several discharges originate in the same facility. All values for an existing discharge should be representative of the twelve previous months of operation. If this is a proposed discharge, values should reflect best engineering estimates.

1. **Discharge Serial No. and Name**

   a. discharge serial number 0 0 3 (three digit code, 001, 002, etc.)

   b. type of waste water being discharged (Process, noncontact cooling, etc.) Noncontact Cooling water, stormwater and groundwater infiltration

   c. volume discharged 53,000 average gals/day 66,000 maximum gals/day (excluding stormwater and groundwater infiltration)

2. **Discharge Location**

   town T-4-N range R-12-E section 1

   county Macomb city or town Romeo

3. **Discharge Point Description** (If the discharge is to a county drain or storm sewer, indicate the receiving waters; e.g., Clear Lake via Mud Drain)

	lake	
X	river or stream	East Pond Creek
	municipal storm sewer	
	county drain	
	groundwater	
	well injection	
	other (specify)	

4. **Activity Description**

   give a narrative description of activity producing this discharge:

   Noncontact cooling water from (2) spot welders, (2) induction heaters and (3) hydraulic presses; stormwater from roofs, parking lots, plant roads, etc.; and groundwater infiltration.

5. **Activity Causing Discharge:** For each S.I.C. Code which describes the activity causing this discharge, supply the type and average and maximum amount of *either* the raw materials consumed (Item 5a) or the product produced (Item 5b).

a. raw materials:

S.I.C. Code	name	average amt/day	maximum amt/day	unit (see Table II)	discharge(s) serial No. (s)

b. products:

S.I.C. Code	name	average amt/day	maximum amt/day	unit (see Table II)	discharge(s) serial No.(s)
3520	Agricultural Tractors				
3530	Industrial Tractors	120	160	Unit Production	003

6. **Waste Abatement Practices:** Briefly describe the waste treatment practices applied to this discharge. (attach a waste flow diagram)

narrative: None

a. distance of treatment facility and/or disposal area from nearest well:

private well NA feet; municipal well _____ feet.

b. if subsurface disposal, land application, or oxidation pond is proposed, nearest distance to a surface watercourse: NA feet.

c. if discharge is to underground by injection well, include an application and/or approved permit in accordance with the provisions of Act 315, Public Acts of 1969.

d. names and addresses of property owners adjacent to the facility:

name	address
NA	

7. **Wastewater Characteristics:** If you presently have a discharge permit, list all parameters reported on the current monthly operating report and compute monthly averages, maximum and minimum from the past twelve months. For the proposed discharge, describe the expected characteristics of the discharge after treatment.

Parameter	Daily Average a/	Monthly Maximum	Monthly Minimum	Sample Frequency	Sample Type
$B.O.D._5$	2 mg/l				
C.O.D.	16 mg/l				
T.O.C.	7 mg/l				
S.S.	1 mg/l				
$NH_3 - N$	0.08 mg/l				
Cu	<0.02 mg/l				
Temp.	7.5° C				
pH	7.97				

Oil and Grease 2.9 mg/l (11/12/81 Grab) and 1.1 mg/l (11/13/81 Grab)

8. **Critical Materals Discharged:** List those critical materials not reported in Item 7 which may be present in the discharge.

Parameter	Concentration	Units
Copper	<0.02 b/	mg./l

a/ All analyses (except oil and grease) were run on 24-hour flow proportioned sample taken 11/12/81 to 11/13/81 (sampled and analyzed by independent Lab).

b/ Less than measurable concentration (24 hour flow proportioned sample taken 11/12/81 to 11/13/81).

9. **Plant Controls:** Check if the following plant controls are available for this discharge:

NA alternate power source NA alarm or emergency procedure for power or equipment failure.

10. **Residuals and Residues:** Are there any sludges, residues, or critical materials removed from or resulting from treatment or control of wastewaters produced by this discharge?

X yes; _____ no; if *no* is checked, continue to Item 11.

a. the physical state of the residue:

X liquid; _____ heavy sludge; _____ wet solids; _____ dry solids.

b. the liquid portion of the residue is primarily:

X water; X oil; _____ chemical solvent.

c. the residue results from:

_____ process wastewater; _____ sanitary sewage; _____ chemical production;

_____ food processing; _____ machining; _____ dust collection;

_____ paint booths; _____ water treatment; X other (specify). (parking lot and road runoff)

d. estimate the total annual volume or weight of the material:

1,000 (gallons) pounds; cubic yards (circle one)

e. if you dispose of the material yourself, indicate the type of disposal site: N/A

_____ public landfill; _____ private landfill; _____ own land;

_____ shipped out of state; _____ incinerated; _____ other (specify).

f. if a public or private landfill(s) is used, give name(s) and address(es):

NA

g. if you have the material removed by commercial waste or refuse hauler(s), give name(s) and address(es):

Browning-Ferris Industries

5400 Cogswell Road

Wayne, Michigan 48184

h. indicate how the material is stored before disposal or removal:

_____ metal drums; _____ fiber drums; X aboveground tank;

_____ underground tank; _____ stockpiled on ground;

_____ holding pond/lagoon; _____ other (specify) _____

11. **Water Treatment Additives:** if the discharge is treated with any conditioner, inhibitor, algicide, answer the following:

a. name of material(s) Copper Sulfate (Granular) a/

b. name and address of manufacturer(s)

Nolwood Chemical Corp.

8970 Hubbell

Detroit, Michigan 48228

c. quantity (pounds added per million gallons of water treated) 2.2 lbs./acre-foot or not more than 10 lbs. per treatment.

d. chemical composition of these additives:

74.8% sulfate and water, 25.2% copper plus following trace amounts:

0.001% iron, 0.0009% zinc, 0.0002% manganese, 0.001% chromium,

0.01% water insoluble.

NOTE: Complete Items 12-14 if there is a thermal discharge; e.g., associated with a steam and/or power generation plant, steel mill, petroleum refinery or any other manufacturing process.

12. **Thermal Discharge Source:** Check appropriate item(s) indicating the source of this discharge.

	gallons/day
boiler blowdown	
boiler chemical cleaning	
ash pond overflow	
boiler water treatment — evaporation blowdown	
oil or coal fired plants — effluent from air pollution control devices	

a/ Copper sulfate is added to the Plant's stormwater retention pond as an aquatic plant management control and is authorized under the Michigan DNR Permit No. A-76387 for pesticide application to surface waters. No copper sulfate was applied in 1981.

12. (continued)

condenser cooling water	
cooling tower blowdown	
manufacturing process	
other (specify) See Section II, Item 4.	53,000

13. **Discharge Temperature:** (Outfall 003)

maximum summer unknown °F maximum winter unknown °F

average summer 72 °F average winter unknown °F

14. **Intake Temperature:** (City Water Supply)

average summer 68 °F average winter unknown °F