



Union Carbide Corporation
PO Box8361
437 MacCorkle Ave SW
South Charleston, WV 25303
USA

Certified Mail - Return Receipt Requested
7018 1130 0001 9486 7934

January 14, 2020



Ms. Laura M. Crowder, Director
WVDEP Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Attn: Ms. Carrie McCumbers
Title V Permit Program Manager

RE: Union Carbide Corporation (UCC) – Technology Park Operations
Rule 30 Permit Renewal Application
Title V Permit Number - R30-03900004-2015 (Group 1)

Dear Ms. Crowder,

In accordance with Condition 2.3.2 of Permit R30-03900004-2015, enclosed is an application to renew the Title V operating permit for UCC's Technology Park Operations. Two copies of the complete application are provided on CD and paper copies of plot plans and process flow diagrams are provided in accordance with Agency application guidance instructions.

Table of Contents, describes application layout and construction.

Some of the information is considered BUSINESS CONFIDENTIAL and is provided in accordance with Rule 31 requirements. Printed information claimed business confidential is provided on "blue" paper. Electronic media information claimed business confidential is provided by computer diskette labeled business confidential. UCC requests that information claimed confidential be protected from disclosure.

If you have any questions regarding the application, please contact me at (304) 747-1354 or via email at JPFedczak@dow.com.

Sincerely yours,

Jay Fedczak, P.E.
Sr. EH&S Environmental Specialist

Attachments

Union Carbide Corporation Technology Park Operations
Rule 30 Permit Renewal Application
2020

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Description

Application Certification
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Attachment G - Air Pollution Control Device Forms (773 Flare) (on CD only)
Attachment K – Justification for Confidential Business Information
CD Copies of Entire Application – Redacted Copy
CD Copies of Entire Application – Confidential Business Information

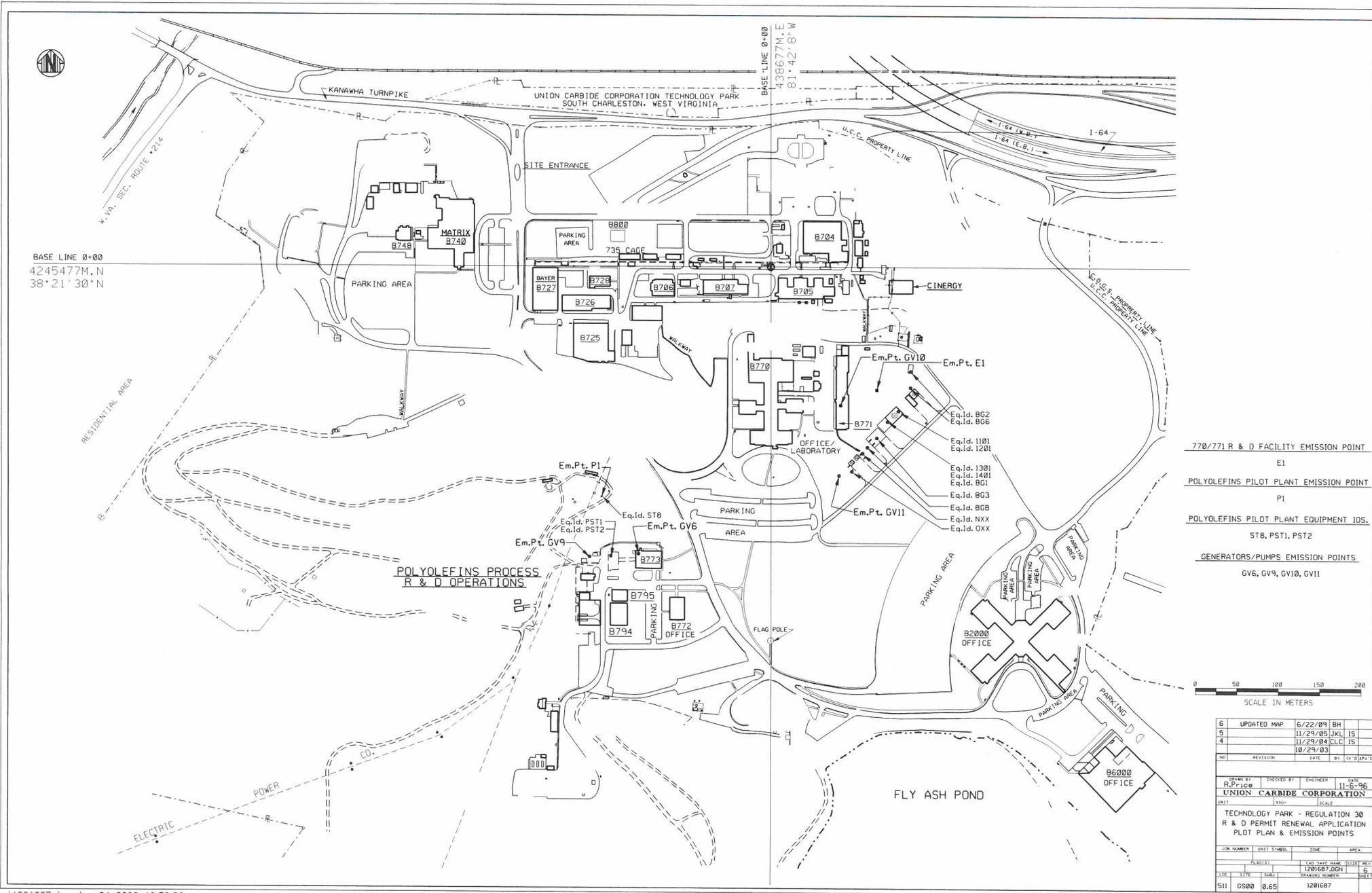
Attachment A

Area Map

Attachment B

Plot Plans

ATTACHMENT B- PLOT PLAN



BASE LINE 0+00
4245477M.N
38°21'30"N

- 770/771 R & D FACILITY EMISSION POINT
- E1
- POLYOLEFINS PILOT PLANT EMISSION POINT
- P1
- POLYOLEFINS PILOT PLANT EQUIPMENT IDS.
- ST8, PST1, PST2
- GENERATORS/PUMPS EMISSION POINTS
- GV6, GV9, GV10, GV11



6	UPDATED MAP	5/22/09	BH
5		11/29/05	JKL JS
4		11/29/04	CLC JS
		10/29/03	
NO	REVISION	DATE	BY (C/O/APP)

DESIGNED BY: R. PRICE
CHECKED BY: ENGINEER
DATE: 11-6-96
UNION CARBIDE CORPORATION
UNIT: 930- SCALE:
TECHNOLOGY PARK - REGULATION 30
R & D PERMIT RENEWAL APPLICATION
PLOT PLAN & EMISSION POINTS

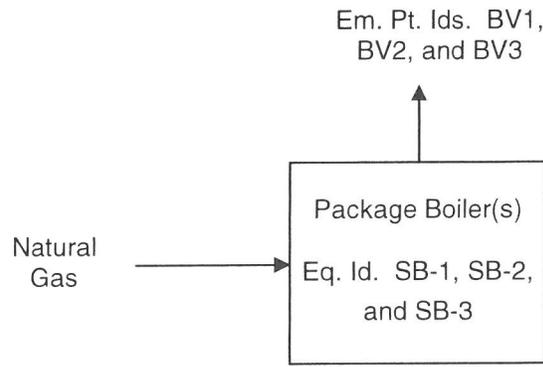
JOB NUMBER	UNIT SYMBOL	ZONE	AREA
LOC	SITE	SHEET	TOTAL SHEETS
511	GS00	0,65	1201687

Attachment C

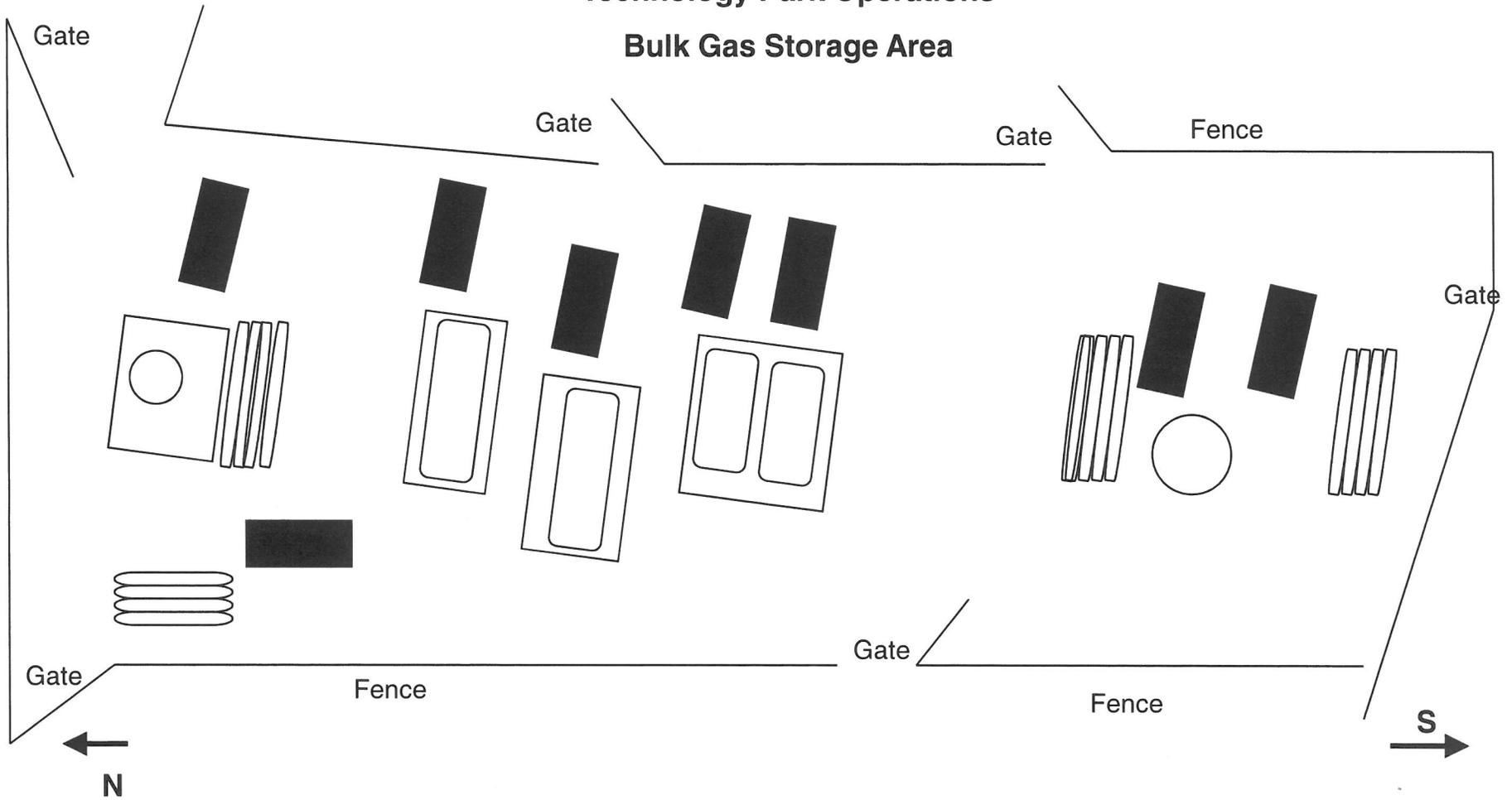
Process Flow Diagrams

Union Carbide Corporation - Technology Park Operations
Rule 30 Permit Renewal Application
Polyolefins Process Research and Development (PPRD): Natural Gas Fired Boilers

Attachment C: Process Flow Diagram



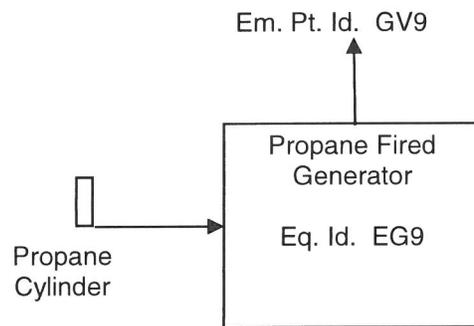
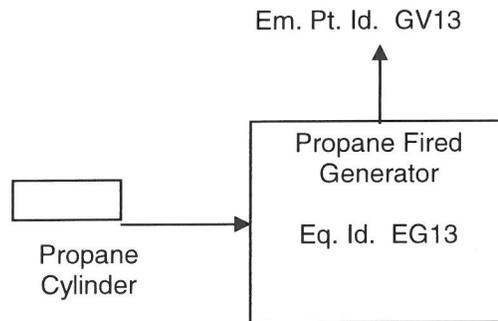
**WVDAQ Rule 30 Permit Renewal Application –
Technology Park Operations**



Redacted Copy – Claim of Confidentiality: 10/29/19

Attachment C

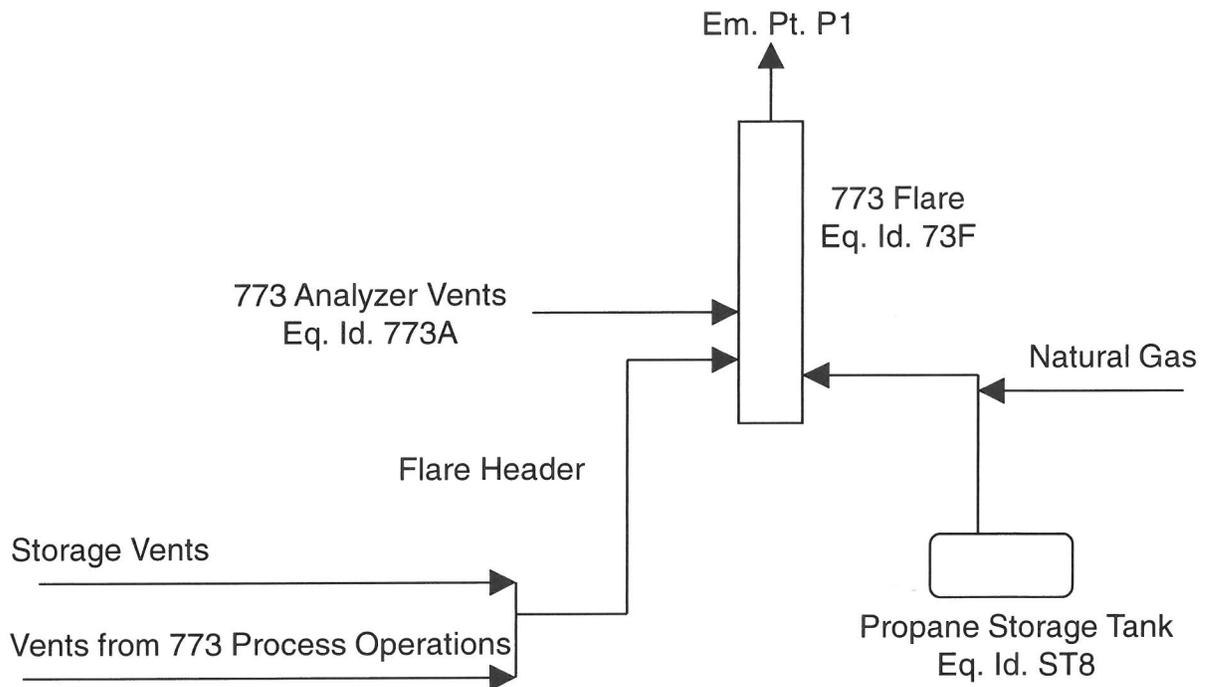
Attachment C
WVDAQ Rule 30 Permit Renewal Application
Emergency Generators
Polyolefins Process Research and Development (Polymers) Pilot Plant



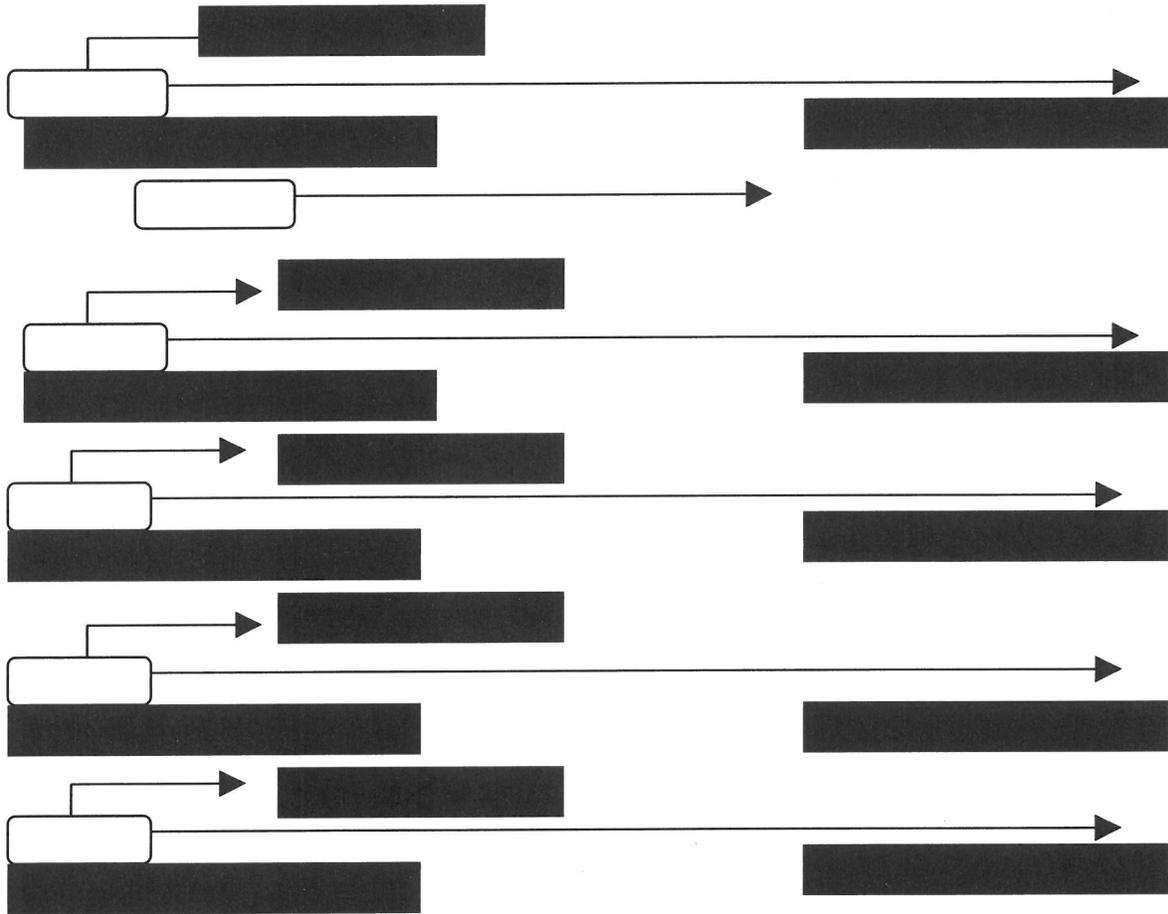
Attachment C

Building 773 Flare

Polyolefins Process R&D (Polymers) Pilot Plant



Attachment C
Raw Materials Storage
(Bulk Gas/Operations Area)
Polyolefins Process R&D (Polymers) Pilot Plant



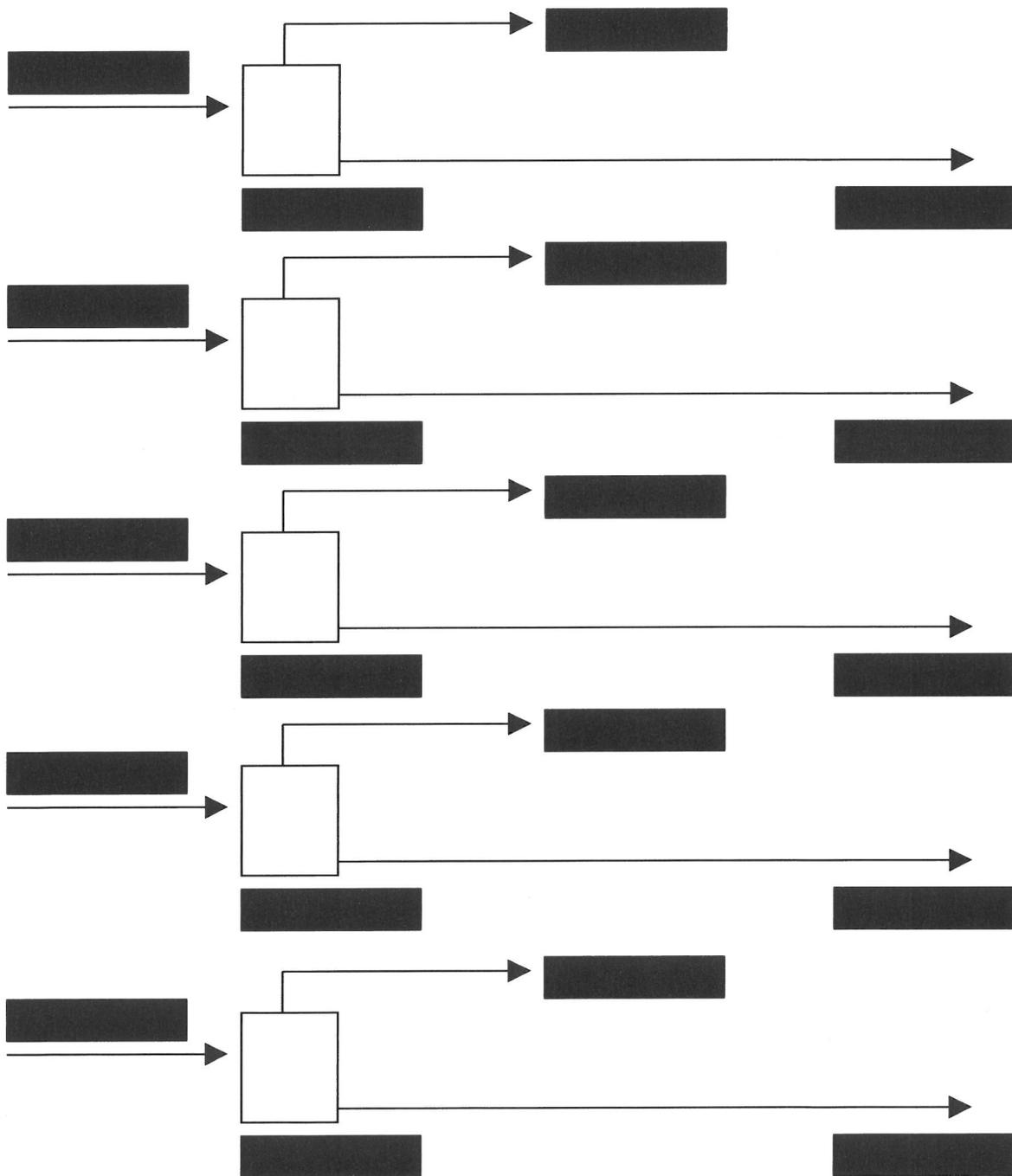
REDACTED COPY – Claim of Confidentiality

REDACTED COPY – Claim of Confidentiality

Attachment C

Raw Materials Purification

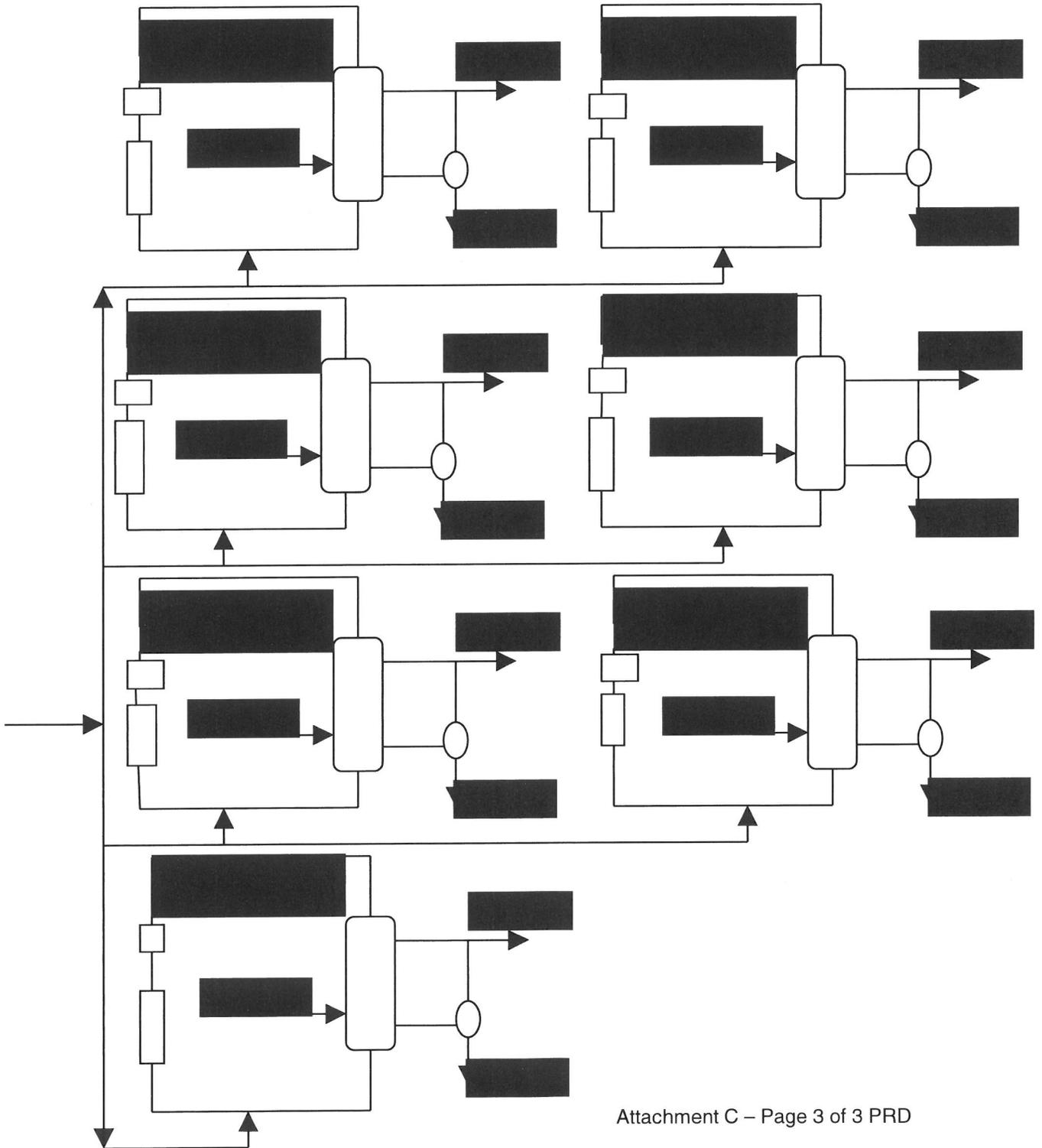
Polyolefins Process R&D (Polymers) Pilot Plant



WVDAQ Rule 30 Permit Renewal Application

Building 773 Reaction Area

Polyolefins Process R&D (Polymers) Pilot Plant



Attachment D

Equipment Table

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
P1	73F	1000	Monomer Purification System #1	NA	1987
P1	73F	1100	Monomer Purification System #2	NA	1988
P1	73F	1200	Monomer Purification System #3	NA	1988
P1	73F	1300	Monomer Purification System #4	NA	1988
P1	73F	1400	Monomer Purification System #5	NA	1988
P1	73F	100	Reactor System 1	NA	< 1975
P1	73F	200	Reactor System 2	NA	< 1975
P1	73F	300	Reactor System 3	NA	< 1975
P1	73F	400	Reactor System 4	NA	< 1975
P1	73F	500	Reactor System 5	NA	1978
P1	73F	600	Reactor System 6	NA	1987
P1	73F	700	Reactor System 7	NA	1988
P1	73F	RXNS	Process Additives Storage/Feed Vessels	NA	1997
P1	73F	773A	Process Analyzers	NA	N/A
ST8		ST8	Propane Storage Tank	1,000 gal	1979
P1	73F	ETTR	Tank Trucks	NA	N/A
P1	73F	BG6	Storage Tank [REDACTED]	<20,000 gal	<1984
P1	73F	1101	Storage Tank [REDACTED]	<20,000 gal	1992
P1	73F	1201	Storage Tank [REDACTED]	<20,000 gal	1994
P1	73F	1301	Storage Tank [REDACTED]	<20,000 gal	1995
P1	73F	1401	Storage Tank [REDACTED]	<20,000 gal	1995
B773		Bldg. 773	R&D Lab Activities	NA	NA
B794		Bldg. 794	R&D Bench Scale Lab Activities	NA	NA
B774		Bldg. 774	R&D Lab Activities	NA	NA
GV9		EG9	Building 773 Stationary Natural Gas Fueled Emergency Generator (Spark Ignition)	45 KW	Prior to 2007

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
GV13		EG13	Bulk Gas Area Stationary Propane Fueled Emergency Generator (Spark Ignition)	30 hp (22.4 Kw)	2010
P1		73F (F003)	Building 773 Flare	21 MMBTU/hr 2,100 lbs/hr mass loading	1994
BV1	none	SB1	Natural Gas Fueled Boiler #1	3.3 mmBtus/hr	2012
BV2	none	SB2	Natural Gas Fueled Boiler #2	3.3 mmBtus/hr	2012
BV3	none	SB3	Natural Gas Fueled Boiler #3	3.3 mmBtus/hr	2012

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

Attachment K

Justification for Information Claimed Confidential

**(also provided by
Computer Diskette)**

JUSTIFICATION OF CONFIDENTIALITY CLAIM

Information filed with WV Division of Air Quality

Expiration Date of Confidentiality Claim: • Permanent

File Name or Description of Document: Rule 30 Permit Renewal Application (Group 1 of 2) provided by cover letter dated January 14, 2020 from Mr. Jay Fedczak, UCC Sr. EH&S Environmental Specialist to Ms. Laura M. Crowder, Director, WVDAQ

Company Name: Union Carbide Corporation

Plant Location: Technology Park Operations

Designee Regarding Claim: Jay Fedczak, P.E.

Department: EH&S

Address of Designee: P. O. Box 8361, South Charleston, WV 25303

Phone Number of Designee: (304) 747-1354 Fax Number: (304) 747-7158

REASON FOR CLAIM OF CONFIDENTIALITY:

TRADE SECRET – See below for detailed information.

Identification of confidential document/segments:

Permit Determination Form Page(s)	Segment Identification	Rationale for Confidential Claim
Attachment C	Process Flow Diagrams Pages: 1 – 3 PRD Page: 1 BGS	Detailed process operating information could be used to reduce competitive advantage.
Attachment D	Equipment Table Page: 1 of 2	

*See attached for additional information.

JUSTIFICATION OF CONFIDENTIALITY CLAIM
EXPLANATORY INFORMATION

File Name or Description of Document: Rule 30 Permit Renewal Application (Group 1 of 2) provided by cover letter dated January 14, 2020
from Mr. Jay Fedczak, UCC Sr. EH&S Environmental Specialist
to Ms. Laura M. Crowder, Director, WVDAQ

Union Carbide Corporation (UCC), A Subsidiary of The Dow Chemical Company requests that information contained in the permit application that has been designated as "Claimed Confidential" not be disclosed to the public. Each of the four specific business confidential criteria is detailed below.

UCC claims confidentiality protection for the identified parts of this application since the information marked as business confidential would allow reasonably competent chemical engineers to determine the manner in which UCC produces the product of this process. Since the equipment and raw materials are available to a number of competitors or potential competitors, disclosure of this information would allow these competitors to produce this product without either paying for the technology or conducting the research and development necessary to obtain the technology themselves. This would allow competitors to produce the products at a potentially lower cost, devaluing the investment that UCC has made in this technology and lessening the competitor's appreciation for the safety considerations necessary for operating this process.

UCC continues to claim confidentiality protection for this business. The claim has not expired by its term, or been waived or withdrawn.

Information in the permit application is not reasonably obtainable by persons other than UCC employees, persons who UCC determines need to know (e.g. UCC contractors and licensees), and personnel in the Division of Air Quality. There are no plans to relax strict maintenance of confidentiality for this information.

UCC provides access to confidential information to its employees, contractors, licensees and other personnel on a need-to-know basis. Its confidentiality policy aids in prevention of inadvertent dissemination of information. UCC employees, contractors, and licensees have obligations of confidentiality to UCC.

Person Making Confidential Claim: Ana Marino
Ana Marino

Title/Position: West Virginia Operations Responsible Care Leader

Date: 1-9-2020