COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION SOUTHWEST REGION - FIELD OPERATIONS AIR QUALITY 400 WATERFRONT DRIVE PITTSBURGII, PENNSYLVANIA 15222-4745

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RACT OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination sources(s) described helow.

Permit Number: 04-000-306

Owner: BASF Corporation Monaca Site

Address: 370 Frankfort Road Monaca, PA 15061

Attention: Julie M. Cherix Environmental Specialist

This permit is subject to the following conditions:

1 That the source and any associated air cleaning devices are to be:

a. Operated in such a manner as not to cause air pollution.

- b. In compliance with the specifications and conditions of the Plan Approval issued under the corresponding number.
- c. Operated and maintained in a manner consistent with good operating and management practices.

Air:

- 2. This permit is valid only for the specific equipment, location and owner named above.
- 3. See attached.

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the Rules and Regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued: 3/23/01

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Regional Air Quality Manager

Cleaning: Devices:

Source: Polymer Production Facility

Thermal Oxidizer

Location: Potter Twp. County: Beaver

2. Equipment at BASF's Monaca facility includes the following:

(a) Raw material storage tanks with associated unloading equipment, including:

- (i) Two butadiene storage tanks
- (ii) One styrene storage tank
- (iii) One acrylonitrile storage tank
- (iv) Five acrylate storage tanks
- (v) One methacrylic acid storage tank
- (vi) One acrylic acid storage tank
- (vii) One vinyl acetate storage tank
- (viii) One versene storage tank
- (ix) One tertiary dodecyl mercaptan storage tank
- (x) One ammonium hydroxide storage tank

(b)

Styrene/Butadiene (S/B) Production Area, including

(i) Five pre-mix tanks with transfer pumps

- (ii) Five reactors
- (iii) Five strippers (vented through closed loop, non-contact condenser)
- (iv) Eleven modification/blend tanks
- (v) Five Sweco filters

(vi) Fourteen product storage tanks

(vii) Truck, railcar, tote, and drum loading equipment

(c) Acronal Production Area, including:

- (i) Four pre-emulsion tanks
- (ii) Four reactors
- (iii) Four conditioning vessels
- (iv) One drumming tank
- (v) Two Swecofilters
- (vi) Eleven product storage tanks
- (vii) Truck, railcar, tote, and drum loading equipment
- (d) Primary, secondary, and sanitary wastewater treatment facilities, not currently required to be vented to the TOU or the flare.
- (e) Note: Some storage tanks share SIB and Acronal products (at different times)All raw material storage tanks except the versene tank shall be vented to the thermal oxidizing unit (TOU) or the flare.

3 The SIB pre-mix tanks (5), reactors (5), and strippers (5) shall be vented to the TOU or the flare, except during emergency venting. The SIB pre-mix tank contents shall be transferred to the SIB reactors using pumps.

- 4. The emissions from the SIB strippers shall go through the closed loop, non-contact condenser, on the way to the TOU or the flare.
- Presently, the SIB modification blend tanks (11), SIB Sweco filters (5), SIB product storage tanks (14) and the SIB railcar, truck, tote, and drum loading areas are not required to be vented to the TOU or the flare
- 6. The Acronal pre-emulsion tanks (4), and reactors (4) shall be vented to the TOU or the flare , except during emergency venting.
- Presently, the Acronal conditioning vessels (4), Acronal drumming tank (1) Acronal Sweco filters (2), Acronal product storage tanks (11), and Acronal railcar, truck, tote, and drum loading areas are not required to be vented to the TOU or the flare.
- The TOU and the flare shall achieve an overall VOC collection and destruction efficiency of 99%. The TPOU shall maintain tan exhaust temperature of 1800°F for a residence time of 1 second. A lower TOU operating temperature may be allowed if the required 99% destruction efficiency is demonstrated to the Department's satisfaction.
- 9 The TOU shall be the primary control device used to destroy VOV vent emissions. The flare may be used when the TOU is inoperative or being maintained (up to 1500 hours per year).
- 10. Owner/operator shall continue to administer a fugitive leak detection and repair (LDAR) program.

- Permittee shall comply with the following recordkeeping requirements:
 - BASF shall record the temperature of the TOU and/or the flare (whichever is operating) at least two times per shift.
 - b) This facility shall maintain records of all start-ups, shutdowns and malfunctions of the TOU and the flare.
 - c) BASF shall keep records of the LDAR program.
 - All records shall be retained on site for five years, and be made available to the Department upon request.