APPENDIX E
Ohio Upset Rules and Data

Upset Rules: Ohio's regulations do not provide an exemption or affirmative defense for upsets, startups or shutdowns. The Ohio Environmental Protection Agency may exercise its enforcement discretion in deciding whether or not to take an enforcement action for exceedances.

Ohio's rules, however, do include a variance provision. One version of this variance is approved into the Ohio SIP, while another version is included in Ohio's regulations. Under both versions, new variances from SIP requirements cannot become effective until they are approved by EPA.[1] Renewals of those variances, however, do not require EPA approval.[2] This appears to violate Clean Air Act section 110. Under Ohio's current variance rule (but not the SIP approved version of the rule) variances are prohibited for "new facilities," which are defined as any source the construction or modification of which is commenced on or after February 15, 1972.[3] This provision seems to significantly limit the number of facilities that could qualify for a variance. According to Ohio EPA, no variance has been granted in the past ten years.

In addition, Ohio's rules generally require facilities to shut down air pollution sources during scheduled maintenance of air pollution equipment that requires the shutdown or bypassing of such equipment.[4] Sources may request, however, and receive approval to shutdown or bypass of air pollution control equipment without the shutdown of associated air pollution sources during maintenance.[5] According to Ohio EPA, this provision does not excuse any excess emissions that occur during the maintenance.

Reporting: Ohio's implementation of its reporting requirements needs significant improvement. The regulations require maintenance that will necessitate the shutdown of air pollution control equipment to be reported at least two weeks prior to the planned shutdown if the source intends to operate while controls are shut down.[6] The report must include the estimated quantity of emissions likely to occur during the shutdown.[7]

In addition, Ohio requires "immediate" notification by phone, fax or email of any malfunction that results in illegal excess emissions.[8] This notification must include the nature and estimated quantity of air contaminants. If the malfunction lasts more than 72 hours, the permittee must also submit a written statement within two weeks of the date the malfunction occurred and must, within two months, submit a plan for preventing, detecting and correcting similar failures or breakdowns of equipment.[9]

Finally, recent amendments to OAC §3745-77 require Title V permittees to

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"Never really thinking about any hazards, assuming that the EPA are monitoring this factory and I found out that wasn't the case. . . Sun was required to monitor themselves and how much they were or were not putting out as far as letting the public know, I have no idea about. . . After doing a lot of homework, Anita and I both found out that there were many leakages way above and beyond what was going on, . . . I developed breast cancer, had to have a mastectomy and developed of course chemical sensitivity, very closely related to petroleum-based products. . . Even today, I find that I'm still having medical problems, thyroid being one of them, of course the chemical sensitivity, fatigue. . ."

* worked directly across the street from the Sunoco refinery. She now lives in New Jersey.

include in reports all excess emissions, including excess malfunction emissions. These reports, however, are not required to include estimates of emissions.

Data: We reviewed files for the facilities listed below. We were unable, however, to obtain reliable data regarding the total emissions during upsets from these facilities, because the files appeared incomplete. Only 1/3 of the reports we found in the files actually quantified upset emissions. Many of the other reports either identified only the pollutant released, or failed to include any description of the emissions during the upset.

Facility Name	Facility Location
Degussa	Belpre, OH
Chevron Phillips	Marietta, OH
Kraton Polymers	Belpre, OH
Globe Metallurgical	Beverly, OH
BP Amoco - Solvay Chemicals	Marietta, OH
Nova	Belpre, OH
Premcor	Lima, OH
BP	Toledo, OH
Sun	Toledo, OH
Marathon Ashland	Canton, OH

Furthermore, the files for some of the facilities included only a handful of reported upsets. A number of files contained only a few emails. The attached sample spreadsheet for Premcor's Lima facility incudes more information than was available for most Ohio facilities, yet still illustrates the lack of data in Ohio's files.

While we did not total upsets for Ohio facilities, due to the lack of data, the reports we reviewed did indicate that upsets are causing significant pollution in Ohio. Sun's Toledo facility appeared to be somewhat diligent about reporting excess emissions of SO_2. The chart below includes just a few of the large emissions reported by Sun's Toledo facility.

SAMPLE SUNOCO RELEASES

Date	Amount Released
1/8/01	1,700 lbs. propane
5/22/01	1800 lbs. SO_2
6/15/01	1025 lbs. SO_2
7/1/01	36,388 lbs. SO_2
9/22/01	97,100 lbs. SO_2
10/16/01	29,803 lbs SO_2
3/4/02	42,960 lbs. SO_2
5/20/02	95,250 lbs. hydrocarbons
5/28/02	9,510 lbs. hydrocarbons
7/29/02	96,300 lbs. hydrocarbons
8/12/02	411,600 lbs. butane
11/2/02	12,883 lbs. SO_2

Sun's reports, however, rarely included pollutants other than SO_2. Given the emissions reported from other refineries around the country, it is hard to believe that Sun does not emit significant excess quantities of CO and VOCs. A few of Sunoco's reports did identify emissions of "mixed hydrocarbons," but most of those reports listed the quantity as unknown.

NOTES

1 OAC §3745-35-03.

2 *Id.*

3 OAC §3745-15-01.

4 OAC §3745-15-06(A)(2).

5 OAC §3745-15-06(A)(3).

6 OAC §3745-15-06(A).

7 *Id.*

8 OAC §3745-15-06(B).

9 *Id.*

PREMCOR • Lima,OH
Emissions Data (Lbs./Event): 1.01.01 – 12.31.02

Start Date	Unit	Emission Point	Opacity (%)	Duration (hrs.)	SO2	H2S	CO	NOx	Total VOCs	Benzene Compounds	Butadiene	Other Emissions	Type of Event
12/30/02		CO Boiler bypass stack			11,760								
12/28/02		FCC flare, LIU flare, acid gas flare, Coker blowdown stack		46.4	35,980			347					
12/12/02		LIU flare		1.3				44					
12/10/02		FCC flare		4.5	12,551			173					
12/3/02	SRU	SRU incinerator stack		10.2		844							
11/27/02		LIU flare		0.4				35					
11/21/02		LIU flare		4.7				130					
10/16/02		LIU flare		0.3				19					
1212/01		SRU flare		1.3	1,278								
9/14/01		SRU flare		0.4	2,912								
8/5/01		SRU flare		0.1	546								
7/26/01	Railcar	leaky foot valve of railcar		2.3						48			
7/10/01		East Flare		24.9	13,000								
5/12/01		Acid gas flare		0.5	3,200								
3/11/01	East Side heaters & boilers	LIU flare and ESP & East side heaters and boilers		504.1	608,000								
2/14/01	CE Boiler & Furnace	CE Boiler & Coker Furnace		2.2	4,000								
2/10/01	CE Boiler & Furnace	CE Boiler & Coker Furnace		4.9	9,000								