

1988 SECTION 313 EMISSIONS

	AIR FUG.	STACK	WATER	LAND	OFFSITE	SECOND OFFSITE	TOTAL OFFSITE
ANTIMONY	0	0	0	0	863.5(2) 3 (3) 1 (9)	863.5(1)	1731
BARIUM	0	0	0	0	61(2) 264(6) 2(3)	61(1)	388 *
CAUSTIC	0	0	0	0	0	0	0
Di-N-Octyl Phthalate	0	0	17*	0	6460(4) 326(9)	72184(5)	78970
LEAD	0	7	0	0	3018(2) 30(3) 4(9)	3018(1)	6070*
METHANOL	1-499	0	0	0	0	0	0
PHTHALIC ANHYDRIDE	0	0	0	0	1932(7)	0	1932
SODIUM SULFATE	0	0	148,276	0	0	0	0
SULFURIC ACID	0	0	0	0	0	0	0
VCM(8)	3008*	73,554*	0*	0	0	0	0

- (1) Empty Bags (Sent to Monroe County Landfill)
- (2) Empty Bags (Sent to Chem. Waste Management)
- (3) Floor Sweep (Sent to Chem. Waste Management)
- (4) Filter Cake (Sent to Chem. Waste Management)
- (5) Separator Oil (Sent to Stauffer in Baton Rouge to be burned)
- (6) Stabilizer Spill (Sent to Chem. Waste Management)
- (7) PA Spill (Sent to Chem. Waste Management)
- (8) Fugitive emissions were calculated using correlation factors developed from a bagging study done at this plant)
- (9) API Sludge (Sent to Chem Waste Management)

* Represents a reduction from 1987 emissions reported.

Notes:

- 1. Ammonia and chlorine were both reported last year. Both of these chemicals did not meet minimum usage requirements for 1988 so they were not reported.
- 2. Sodium Sulfate was not reported last year.

SECTION 313 EMISSIONS REPORTED FOR 1987

	AIR		WATER	LAND	OFFSITE	SECOND OFFSITE	TOTAL OFFSITE
	FUG.	STACK					
AMMONIA	1-499	0	1466	0	0	0	0
ANTIMONY	0	0	0	0	31(2) 1(3)	1223(1)	1255
BARIUM	0	0	0	0	495(2) 88(6)	640(1)	1223
CAUSTIC	0	0	0	0	0	0	0
CHLORINE	1-499	1-499	0	0	0	0	0
Di-N-Octyl Phthalate	0	0	50	0	6880(4)	64967(5)	71847
LEAD	0	7	0	0	7730(2) 11(3)	5804(1)	13545
PHTHALIC ANHYDRIDE	0	0	0	0	1012(7)	0	1012
SULFURIC ACID	0	0	0	0	0	0	0
VCM(8)	29,521	90,480	57	0	0	0	0

- (1) Empty Bags (Sent to Monroe County Landfill)
- (2) Vacuum Dust (Vacuum Dust has been eliminated as a waste in 1988, it is now sold as an offgrade.)
- (3) Floor Sweep (Sent to Chem. Waste Management)
- (4) Filter Cake (Sent to Chem. Waste Management)
- (5) Separator Oil (Sent to Stauffer in Baton Rouge to be burned)
- (6) Stabilizer Spill (Sent to Chem. Waste Management)
- (7) PA Spill (Sent to Chem. Waste Management)
- (8) Fugitive emissions were calculated using EPA's Stratified Emission Factors.

CC: DCS A
PSK

TO: Distribution

FYI

FROM: J. C. Ledvina
DATE: October 10, 1988

VISTA

Interoffice
Communication

SUBJ: SARA 313 EMISSIONS INDUSTRY COMPARISON

Attached are tables summarizing VCM emissions from PVC and VCM plants around the country. The data was accumulated by the Vinyl Institute. A number of facilities did not submit their numbers to the VI. These include all BFG plants, Shintech-Freeport, Formosa-Point Comfort, PPG-Lake Charles, and Borden-Illiopolis. Some plants reported no stack emissions. For PVC plants such as those of Air Products, Georgia Gulf, and Formosa, I suspect this was an oversight. They should have drier stack emissions at the least.


J. C. Ledvina

dlj
.317

Attachment

Distribution:

H. R. Flanner, R. J. Andersen, T. H. Huffman, R. D. Gamblin
R. A. Conrad, E. R. Taylor - LCVM
H. D. Garrison, B. J. McCuddin - OKC
F. G. Jeanson, R. W. Seymour - ABER

RANK - TOTAL EMISSIONS

1.	Oxy-Pottstown	222,430
2.	Formosa-Delaware City	124,140
3.	Vista-Aberdeen	120,058
4.	Oxy-Pasadena	115,218
5.	Vista-LCVCM	110,990
6.	Vista-OKC	69,246
7.	GA-Gulf (Plaquemine)	68,815
8.	Oxy Burlington S.	58,970
9.	Borden-Geismar	58,843
10.	Oxy Deer Park	44,600
11.	Certainteed-Sulphur	41,000
12.	Oxy-Addis	36,000
13.	Oxy-Burlington N.	28,730
14.	Air Products - Calvert City	28,000
15.	GA-Gulf-(Delaware City)	20,500
16.	Air Products-Pensacola	6,000
17.	Dow-Louisiana	7,200
18.	Dow-Texas	3,800
19.	Dow-Midland	2,298

RANK - FUGITIVES

1.	Formosa - Delaware City	123,910
2.	Vista - LCVCM	110,000
3.	GA-Gulf-Plaquemine	68,803
4.	Oxy-Deer Park-VCM	44,400
5.	Vista - Aberdeen	29,521
6.	Borden - Geismar	26,643
7.	Certainteed - Sulphur	26,000
8.	Air Products - Calvert City	26,000
9.	GA-Gulf - Delaware City	20,500
10.	Oxy - Pottstown	19,000
11.	Vista - OKC	18,383
12.	Oxy - Burlington N.	15,800
13.	Dow - Louisiana	7,200
14.	Air Products - Pensacola	6,000
15.	Oxy - Addis	4,000
16.	Dow - Texas	3,800
17.	Dow - Midland	2,294
18.	Oxy - Pasadena	2,000
19.	Oxy - Burlington S.	1,170

RANK - POINT SOURCES (STACK)**Pounds**

1.	Oxy-Pottstown	200,000
2.	Vista - Aberdeen	90,480
3.	Oxy - Burlington S.	57,700
4.	Vista - OKC	50,574
5.	Oxy - Pasadena	40,000
6.	Borden - Geismar	32,185
7.	Oxy - Addis	19,400
8.	Certainfeed - Sulphur	15,000
9.	Oxy Burlington N.	12,900
10.	Oxy - Deer Park	200
11.	Vista - LCVCM	1-499

SARA COMMUNICATIONS PLAN

A

I. Pre-Meeting Preparation

A. Understand Employee and Community Concerns

- | | |
|---------|--|
| VEM/MSR | 1. Employee focus group |
| VEM/MSR | 2. Community focus group |
| | 3. Understand what questions we need to answer |

B. Technical Preparation

- | | |
|-----|---|
| FGJ | 1. Finish calculations of emissions |
| RAF | 2. Model the data - contractor |
| RAF | 3. Emission comparisons for previous years |
| RAF | 4. Comparisons against standards |
| RAF | 5. Risk exposure data - from monitoring and model |
| RAF | 6. Background information on VCM exposure |
| RAF | 7. Other VCM/lead information or comparisons |

C. Video and Pamphlet Preparation

- | | |
|-------------------------|--|
| Group
KLF to
lead | 1. Prepare fifteen-minute video on plant. Include plant process, safety record, quality emphasis, products, emissions data, data from emission models, emergency preparedness planning, information about chemical hazards. |
| Group
KLF to
lead | 2. Prepare pamphlet about plant. Include process overview, safety record, quality program, products, facts about plant, facts about chemicals, comparisons about emissions, economic contributions to community, emergency preparedness plans. |

II. Communication to Employees, Families and Retirees

A. Plant Newsletter

- | | |
|-------------|--|
| DWH/RAF/FGJ | 1. April - Title III - explain what it is and we are working on numbers. |
| DWH/RAF/FGJ | 2. May - give emissions - give comparisons, graphs, etc. |
| DWH/RAF/FGJ | 3. June - follow-up with answers to questions. |

B. Employee Meetings

1. As part of normal employee meeting, show video, answer questions, give pamphlet.

C. Plant Open House for Families (DWH/RAM/RWS)

1. Serve light meal
2. Show video
3. Tour
4. Give pamphlet
5. Answer questions

III. Near Neighbors

- | | |
|-------------|--|
| RAM/DWH/RWS | 1. Distribute pamphlets with invitation to open house. |
| RAM/DWH/RWS | 2. Hold open house - same as for employees. |

IV. Environmental Groups

- | | |
|-------------|---|
| RAF/VEM/RWS | 1. Identify who they are and what are concerns - use chamber to help. |
| RAF/VEM | 2. Invite specific people to open house. |
| RAF/VEM/RWS | 3. Hold open house. |

V. Community Groups

- | | |
|-----------------|--|
| RWS/PJK/RAF/CWT | 1. Identify groups. |
| | 2. Hold open house or go to speak at groups. |
| | 3. Industry week exhibit/activities. |

VI. Local Government

- | | |
|-----------------|--|
| RWS | 1. Identify who to target. |
| RAM/VEM/KLF/RWS | 2. Open house for those identified in #1. |
| RAF/RWS/RAF | 3. Letters to Congressmen/Senators with pamphlets. |

VII. Media

- | | |
|-----------------|-------------------------------|
| RWS/RAF/KLF/VEM | 1. Hold open house for media. |
|-----------------|-------------------------------|

Bob Seymour, Veldon Messick

To:

Mike Reynolds

From: April 13, 1988

Date:

Subject: Comments of focus groups

interoffice
communication

VISTA

Here's a transcript of the notes I took during the two sessions in Aberdeen. Hope they are helpful. I enjoyed the work and thought it was very productive. I could have kept typing and putting in my own comments with these notes, but after five pages, I was getting burned out on it and thought we could just talk if you needed anything else.

Mike

cc: Tom Grumbles, Elliot Vogelfanger

Aberdeen

Employee Focus GroupsConcerns employees believe people around the plant have:

1. Dust emissions.

One employee reported that people near the plant have problems with resin not only getting on them outside, but also getting inside their houses and on furniture in homes

2. Possible harmful effects of resin.

Does the resin get into the water supply. They know it gets into water and runoff after rain. Is it going into the river?

3. What goes on at the plant? People don't understand our operations. They don't know what we do, use or make. They see steam and don't know the difference between that and chemicals being released.

4. Can it (the plant) be a hazard?

5. What goes in the air? Some know that we have hazardous chemicals and are wondering if we're polluting the air.

6. Some neighbors are bothered by noise--freezer alarm--Gaitronix.
general nuisance noise

7. Emergency drills.

Public passes by and sees people standing outside and doesn't know what to make of it.

Employees not sure of what they do after they go to their first assembly spot

8. Is the water effluent contaminated?

9 Will we know about emergencies soon enough to react? If we had an out of control situation, could we tell people and evacuate people in time?

10. Public perception of VCM hazards. Tough for employees to explain when they don't understand operations of other sections of the plant. Therefore, the following is needed.

11. Employee education on plant processes.

When people were asked what they thought would be the citizens' reaction if they knew we were putting out 10 tons of VCM each year, they reacted negatively. When asked about 50 tons, they began to show a bit of outrage themselves and said they thought that would be too much. Then later said that maybe that sounds like a lot, but maybe it isn't.

12. Natural (tornado) disaster effects upon the plant?

13. Local fire department's knowledge and ability to help.

Employees were asked to pick two of the concerns above as the most serious. The rating is as follows:

#1=3 votes
3=3
4=1
5=4
8=1
9=3
13=1

Employees said that they or other employees had the following concerns about plant operations.

1. Lead dust exposures.

- Maintenance can't get protective clothing sometimes. When they do, it doesn't fit well. All but the extra-large sizes rip out under the arms when you bend over.
- Some said the vacuum system didn't work or was inadequate.
- They weren't supposed to sweep, but when it didn't work they had to sweep.
- Concern about the amount of resin on the roof of the compound control room.
- Sanitation/hygiene/showers. Some employees were worried about tracking lead into other departments. Not being able to shower and get it off of them before they go home. Worried about taking it home on their clothes and tossing in the washing machine with kids' clothes.
- hazard data too technical. Can't understand the MSDS. Not enough information on stabilizers.

2. Training program content? Too much, not understandable. Some employees said they thought VCM was a danger once they could see it or smell it.

3. Housekeeping in compound. Shorthanded and don't have time to keep neat. Houston being blamed for lack of a change house, showers.

4. Contractor training/knowledge of hazards. Problem with contractors using company equipment and not taking care of it or reporting use of such equipment as fire extinguishers.

A

Aberdeen

5. Van testing not trusted.

- Content
- Confidentiality. Too many people (plant manager, superintendent, nurse, safety director, doctor, supervisor, etc., know about problems before employee is told)
- Usefulness. They believe it is for the protection of the company, not them. Question whether company would tell employees about non-job-related problems if they found them. Outside noises make hearing test impossible.

6. Communication about rest of plant and what different departments do is needed.

7. Concern that piping is not being checked and replaced as it should be.

Employees were then asked to pick two of the above as their biggest concerns. The results were as follows:

#2=3 votes

3=2

4=5

5=2

6=4

Employees were asked what messages we should tell the public:

1. Vista is safe. Although our work is dangerous, we make every effort to work safely. We meet or exceed government standards. Explain OSHA guidelines and how much we're under it. Tell them everything, right up front. What we're doing to prevent leaks. Take emissions even lower.
2. Employees (nonmanagement) are best communicators.
3. Compare emissions to what's acceptable by government. guidelines
 - what our standards are
 - goals for improvement
4. Economic benefits to the community.
5. Program contents.
6. Emissions vs. exposures. Just because we emit it, that doesn't translate into exposure. Explain that.
7. Telephone line for questions and complaints. Put someone it with enough education to answer questions.
8. Remedial measures.
 - what we do to respond to leaks

Other odds and ends.

1. Put together a committee of insiders and outsiders.
Explain emissions and safety issues to them. Since it's not their job, no ax to grind, they would be seen as credible.
2. Let people tour plant. Tour all of plant. One employee said they had worked there 18 years and wife had never seen where they worked. Asked for permission and brought her in and showed her.
3. Tell employees about capital budget plans.
4. Introductory training takes a week. It should be spread over six months.
5. Don't live outside the community.
School system needs help
Talk up and be a booster of the community
Upper management should set an example

Ideas to help training

1. Interesting outside speakers was the #1 suggestion
Some employees thought supervisors were not qualified to give safety training.
2. Some said it was hard for employees to come off a 12-hour shift and then sit through training. Others said they would rather do that than come in before a 12-hour shift.
3. Some said training didn't seem to be planned. Just put on the same old boring slides, turn off the lights and let them run.
4. They thought it would be a good idea to bring different departments, such as the front office and maintenance together.
5. Some didn't think that an employee giving the training was very good.

Aberdeen

CommunityConcerns citizens have about Vista's operations:

1. Stuff in air--yellow stuff on the car, in spring, white resin much of the time, gets on people's skin when they sit outside during spring, summer, fall. People near the plant reported the problem. (Within a quarter mile)
2. PVC or something like that emptied near a water well out in Prairie.
3. Fish kill in creek. Water turned green. No kills lately, but it still turns green.
4. Sometimes there's a stench in the air. Definitely a chemical smell. Last time really strong was the Friday night before Easter. Used to be a lot of the time. Not so much now. Reported by people living near the plant. Others used to smell it, but none do now except people near the plant. Used to smell a smell like stinkweed coming from us or Walker. (reported by resident north of plant)
5. Higher incidence of cancer in Aberdeen than normal (believed to have come from CDC)
6. One person recalled that a relative had worked in plant in summer and thought unloading tankcars was dangerous.
7. Local fire department informed about Vista? About what needs to be done in the event of a fire or disaster? About what we have stored there? Do they have enough equipment? Do they have the right training?
8. What are we going to do if there's a fire?
9. Do we have evacuation plans? Would they be needed in the event of a major disaster?
10. What kind of situation would result if there is a large release or a fire, no wind, and chemical or fumes stayed near the ground, rather than blowing away. One person told of fire at a customer of ours, in which PVC burned and a number of people were taken to the hospital with respiratory complaints, neighborhood was evacuated.
11. Is the medical community informed about what symptoms might be from our chemicals? Do they know how to treat people after fire, disaster, major release?
12. Some reticence on part of management in past to talk to people. Suspicious of enquiries. Something to hide?
13. Something taking paint off car near plant. Small specks.
14. Noise from the spur track.
15. Intercom. Can hear it in the house blocks from the plant. Not loud enough to wake anyone.
16. Sometimes when there's a real loud noise people near the

Aberdeen

plant come out and look to make sure everything is ok.

17. Loud roaring noise sometimes in the middle of the night.
Don't know source. Us or Walker.
18. People who work at Vista don't talk about what goes on in the plant.

The citizens were asked what they would like to know about Vista:

1. Tell us about the finished products.
2. That it's not going to hurt me.
3. Expansion plans.
4. Emergency plans. Evacuation plans.
5. What do we do and how do we do it.
6. Who are we.

Odds and ends:

One out of 270 employees active in civic affairs.
Have an open house. You did. Once.
You live here, be involved in the town affairs.
"We can't give you a grade on your operations because we don't know enough about what you do."
Don't look like you're asking for trouble.