

BEFORE THE POLLUTION CONTROL BOARD
OF THE STATE OF ILLINOIS

MINNESOTA MINING &)	
MANUFACTURING COMPANY,)	
)	
Petitioner,)	
)	
vs.)	No. PCB 95-90
)	
ILLINOIS ENVIRONMENTAL)	
PROTECTION AGENCY,)	
)	
Respondent.)	

The following is the transcript of a hearing held in the above-entitled matter, taken stenographically by Caryl L. Hardy, CSR, a notary public within and for the County of Cook and State of Illinois, before Deborah Frank Feinen, Hearing Officer, at the James R. Thompson Center, 100 West Randolph Street, Suite 11-500, Chicago, Illinois, on the 5th day of December, 1997, A.D., commencing at the hour of 10:10 a.m.

A P P E A R A N C E S :

HEARING TAKEN BEFORE :

ILLINOIS POLLUTION CONTROL BOARD,
100 West Randolph Street
Suite 11-500
Chicago, Illinois 60601
(312) 814-4925
BY: MS. DEBORAH FRANK FEINEN

ILLINOIS POLLUTION CONTROL BOARD MEMBERS PRESENT :

Jack Burds
Charles King

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MEMBERS PRESENT :

Ms. Laurel Kroack
Mr. Christopher Romaine

OTHER AUDIENCE MEMBERS WERE PRESENT AT THE HEARING, BUT
NOT LISTED ON THIS APPEARANCE PAGE.

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MS. FEINEN: Good morning and welcome to the Pollution Control Board hearing in 3M vs. IEPA. This is a variance petition, PCB 95-90. My name is Deborah Feinen, and I am the Pollution Control Board hearing officer in this case. Also here from the board are Jack Burds, also another hearing officer, and Chuck King, attorney assistant to Marili McFawn.

At this time, I would note that there is one member of the public present. I think everybody else is here associated with the case. I would go ahead and ask the attorneys to make an appearance and if you want to introduce anybody to go ahead and do that.

MR. FORT: Well, I'm Jeff Fort on behalf of 3M here with Cindy Faur as counsel for 3M. We are going to present one witness today, Mr. Thomas Zosel, who will testify concerning the petition.

MS. KROACK: And I'm Laurel Kroack. I'm assistant counsel for the Illinois EPA division of legal counsel, bureau of air regulatory unit. We have one witness with us today, Christopher Romaine, who is manager of the new source review unit. He will be presenting some narrative testimony on behalf of the agency in this matter.

MS. FEINEN: And does our member of the public wish to make an appearance on the record?

MR. ROGERS: Yes. My name is Pat Rogers. I'm a township supervisor for the township of Lyons.

MS. FEINEN: Are there any preliminary matters that we need to discuss before we go ahead and start?

MR. FORT: Well, I don't think we do. As I mentioned before we got started, we have asserted in our variance petitions that we are in compliance with the applicable coding regulations, but after discussing with the agency and having come to really an agreement on conditions of this variance, the key aspect of which is an environmental management system agreement as a compliance program, we don't see the need to ask the board to make a decision on that issue, and I think that was the only issue in the papers that separated us.

So in light of that, it is our view that hopefully the hearing transcript is going to be readable and understandable; that we don't see the need for a briefing on this.

We know this case has been pending for a while. We are proceeding on several fronts concerning the compliance program here of the management system agreement. The agency has regulations out for public comment, and we are hopeful of moving forward expeditiously.

So to the extent the board can accommodate us and take a look as this sooner rather than later, that would be very helpful for us.

MS. FEINEN: Okay.

MS. KROACK: I would only like to say that based on the terms and provisions contained in our recommendation that the agency supports this variance today.

MS. FEINEN: Okay. So I assume then there are no opening statements, so you can move right to your witnesses, or do you have an opening statement?

MR. FORT: I think I just made it.

MS. KROACK: And I have made mine.

MS. FEINEN: Then do you want to call Mr. Zosel?

MR. FORT: Yes. I would like to call Mr. Thomas Zosel as our witness.

MS. FEINEN: Would you please swear the witness?

(Witness sworn.)

THOMAS W. ZOSEL,

called as a witness herein, having been first duly sworn, was examined upon oral interrogatories, and testified as follows:

DIRECT EXAMINATION

BY MR. FORT:

Q Would you state your name for the record, please?

A Thomas G. Zosel.

Q And, Mr. Zosel, do you have prepared testimony to present today?

A Yes.

MR. FORT: Madam Hearing Officer, we have circulated a draft of Mr. Zosel's testimony previously to the agency, and I would like leave to have Mr. Zosel's testimony put into the transcript as if read.

If Mr. Rogers needs some time to read it, we certainly can wait while he reads it or make sure that we have a proper order, but we would like to proceed as if the testimony has been read.

MS. FEINEN: Mr. Rogers, do you have any objection?

MR. ROGERS: I don't. I had an opportunity to read it before we started this morning. I have no objection.

MS. FEINEN: And, Mr. Zosel, this is a true and accurate copy of your testimony?

MR. ZOSEL: It is.

MS. FEINEN: Then I will go ahead and enter that as Petitioner's Exhibit 1 as long as there is no objection from the agency.

MS. KROACK: No objection.

MS. FEINEN: Okay. Then it's entered as if read, and it will be Petitioner's Exhibit 1.

(Petitioner's Exhibit No. 1 marked for
identification, 12-5-97.)

MR. FORT: I have one clarifying question for
Mr. Zosel.

CONTINUED DIRECT EXAMINATION

BY MR. FORT:

Q Mr. Zosel, in your testimony, you indicate that we
project an emission baseline and a cap on emissions from
the Bedford Park plant on the order of 2,792 tons per
year?

A That's correct.

Q We also indicate that as a result of the
Environmental Management System Agreement that we are
working towards a strategy with IEPA that there will be a
1,023 tons per season allotment?

A That's correct.

Q Is it your understanding that that seasonal
allotment of allotment trading units reflects the 12
percent reduction required by the Emission Reduction
Marketing System regulation just passed by the board?

A That's correct.

MR. FORT: Thank you. I have nothing further.

MS. FEINEN: Ms. Kroack?

MS. KROACK: Yes. I would like Mr. Romaine to

testify. His testimony will be in the form of a narrative unless there is an objection.

MS. FEINEN: Okay. Then can you please swear in Mr. Romaine?

(Witness sworn.)

MS. FEINEN: Let's go off the record.

(Whereupon, a discussion was held off the record.)

MS. FEINEN: Let's go back on the record.

MR. ROMAINE: Good morning. My name is Christopher Romaine, and I'm here for the agency. I work in the air permit section. I'm manager of the new source review unit.

The purpose of my statement is to provide the agency's technical perspective on the context of the proposed variance. This variance deals with the moguls and blenders at 3M's Bedford Park plant in which some of the coatings applied at this plant are compounded.

In particular, the concern is loss of volatile organic material or VOM into the work rooms in which the moguls and blender are located that occur from displacement of vapors when these units are charged with raw materials.

Emissions of this type are sometimes described in common usage as fugitive emissions even though they occur

within a building.

The VOM emissions resulting from the charging of raw materials are then mixed with and dispersed in the room ventilation air and discharged as part of the room ventilation system. The concern is not with VOM emissions that occur through stacks or vents that are directly connected to the mixers. The vents on the moguls and blenders are very effectively controlled with reflux condensers.

I think it's necessary to explain while we consider that these compounding operations are very distinct and separate from the actual application of coatings, there are a number of reasons for this. As a practical matter, 3M's situation is unusual as it produces essentially from scratch its own coatings. Most manufacturing facilities engaged in coating obtain their coatings from off-site and only perform final steps needed to prepare the coatings for application such as adjusting viscosity with thinner, producing catalysts or other additives, or correcting for color match.

The manufacture of the coatings generally occurs at other facilities that specialize in producing certain types of coatings serving a particular sector or niche. These coatings may include not only these types of

manufacturing coatings that 3M uses but also architectural consumer-type coatings that you and I might use.

These other facilities are regulated as manufacturers of coatings, not as applicers of coatings. For purposes of compliance, these facilities cannot avail themselves of the presence of other coating operations elsewhere at the site. They simply don't have those other coating operations.

The circumstance of these coating manufacturers are very different than of individuals applying the coatings. The coating manufacturers want to minimize losses of VOM to the greatest extent practical as VOM is an essential constituent in their coating products. Any VOM lost in the manufacturing process represents VOM that is not available to be shipped in product.

In contrast, the individuals applying a coating want to lose or drive off the VOM in the coating leaving behind the pigment, resin, or other active ingredients. In this regard, a key aspect of any coating line is the provision to dry or cure the coating be it a heated bake oven or sufficient space to store the coated product as it air dries.

This can result in very different strategies to

control VOM emissions from the two types of facilities. Add-on control is a last resort for a coating manufacturer who would prefer to prevent emissions by measures such as enclosure, maintaining low temperatures, avoiding other conditions that increase transfer of VOM from liquid to vapor. For the coating applicator, however, add-on control may be the only means to address the VOM evaporating from coatings during drying and curing.

This distinction between emission units involved in manufacturing coatings and applying coatings is reflected in the board's rules. The Chicago area's coating application is specifically regulated under Part 218, Subpart F for units that have been addressed by control technology guidelines by U.S. EPA and under Subpart PP for units which U.S. EPA has not addressed control technique guidelines.

The regulated entity is labeled a coating line. This term is defined in 35 Illinois Administrative Code 211.1230 as an operation consisting of one or more applicators in associated drying equipment where a coating is applied dried and/or cured.

Part 218 also has separate requirements for coating manufacturers including Subpart AA for manufacture of

paint and ink and Subpart QQ for miscellaneous formulation manufacturing processing plants.

Paint manufacturing is defined at Section 211.450 as a source that mixes, blends, or compounds, shellacs, varnishes, stains or other pigmented coatings. These distinctions can be tracked back to US EPA's guidance, in particular the RACT control technique guideline for paper coating which is the classification of 3M's coating operations. It only addresses the coating application process, describes various types of coating applicators and types of control strategies that can be applied to reduce VOM emissions from these operations. It does not address, however, the production of coatings.

Now, as I have explained the displacement losses from charging mixing equipment and compounding operation are most economically controlled by pollution prevention techniques that minimize the generation and loss of vapors. This is exactly what 3M has done for its compounding operations.

Application of add-on control devices beyond the pollution prevention measures can vary in difficulty depending on the circumstances. Certainly, it is far easier if the compounding equipment and the building in which they are located were designed for operation with

an add-on control device, which is not the case for 3M.

Based on my knowledge of 3M's plant layout and familiarity with compounding operations, a control device for 3M's compounding equipment would be costly to install and expensive to operate in comparison with the amount of VOM control because of the amount of air that the control device would have to handle.

Without detailed information about the likely design of such control system, we cannot accurately estimate the cost-effectiveness of such a system. We are confident, however, that the cost would exceed what the board has previously considered reasonably available control technique or RACT.

In addition, it is important to note that the US EPA has not prepared a control technology guideline defining reasonably available control technique for compounding equipment. Rather, this equipment is regulated by one of Illinois so-called generic rules for non-control technique guideline operations, Subpart QQ as I previously mentioned.

These rules only require that control systems achieve 81 percent overall control for VOM. This assumes, of course, that 3M would be unsuccessful if it pursued a site-specific rule or adjusted standard for this

equipment as an alternative to add-on control.

But even if an ad-on control system were installed, it would not necessarily eliminate all of the VOM emissions from compounding. However, under the strategy now proposed by 3M for its environmental management system agreement, 3M would provide reductions equal to 100 percent of the VOM emissions from the compounding operations.

Of equal or greater importance under 3M's environmental management systems strategy, 3M will be able to use the resources which it would have otherwise expended for such a control system to reduce VOM emissions elsewhere at the facility much more productively further controlling VOM emissions from the coating lines themselves which generate the overwhelming amount of the facility's emissions.

3M will also be held accountable for its efforts during the term of the environmental management system agreement in reducing its overall VOM emissions with oversight by both the agency and a stakeholders group.

In these circumstances, it is preferable to grant 3M a variance for its compounding equipment and allow 3M to pursue an environmental management system agreement. The agency cannot point to an established methodology for

further control of the compounding equipment such as applying afterburners to coating lines or use of low-VOM inks, which is in common usage as reflected in a control technique guideline document or other US EPA study.

Given the magnitude of emission reductions now needed for attainment of the ozone air quality standard in the Chicago area, Illinois needs to ensure to the greatest extent practical that resources are applied to maximize the overall reduction that is achieved. The environmental management system agreement will allow 3M an opportunity to demonstrate what it can achieve in exchange for being freed from the constraint of conventional command and control rules for these compounding operations, which represent a small fraction of the facility's total emissions.

Finally, if 3M is unsuccessful, control of the compounding equipment can always be revisited.

That concludes my prepared remarks.

MS. FEINEN: Do you have any questions for your witness?

MS. KROACK: I have none.

MS. FEINEN: Okay. Does the other side?

MR. FORT: No.

MS. FEINEN: Anything further?

MS. KROACK: Yes. We received a letter by fax yesterday and I received an original this morning from Lyons' supervisor Patrick Rogers, who is with us today. The letter is also signed by representative Eileen Lyons of the 47th District and Senator Christine -- I hope I pronounce this properly -- Radogno, R-a-d-o-g-n-o, of the 24th District supporting this variance, and I would like to introduce that into evidence at this time.

MS. FEINEN: Would you like that to be a respondent's exhibit or a joint exhibit?

MS. KROACK: Either way. Jeff?

MR. FORT: I have just seen it this morning, but it can be however you would like to number it.

MS. FEINEN: I will just mark it as a Respondent's Exhibit 1.

(Respondent's Exhibit No. 1 marked for identification, 12-5-97.)

MS. FEINEN: Is there anything further?

MR. FORT: No.

MS. FEINEN: I know the parties have -- and I don't know if this is on the record or not, but the parties have agreed to waive briefs, and as far as issues of credibility, I found both witnesses to be credible, so there is not a problem with that for the board.

Therefore, the record will be closed at the conclusion of this hearing, and the board will be able to begin its deliberation.

Is there anything further anyone wants to add?

MS. KROACK: I just want to make clear one last time that 3M and the agency have agreed that the question of whether the coating operation -- whether the compounding operation is part of the coating process, we have agreed that that issue does not need to be addressed as part of this variance, so we would like the board to not consider the argument for or against in reaching its deliberation. That's the basis under which we would waive posthearing briefs.

MR. FORT: Yes.

MS. FEINEN: And does either side have a closing statement?

MS. KROACK: I do not.

MS. FEINEN: Okay. Then this hearing is adjourned. Thank you all for coming.

(Whereupon, the hearing was adjourned at
10:40 a.m.)

