

1 BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

2

3

4 IN THE MATTER OF:)
 5)
 6 PETITION OF VONCO PRODUCTS, INC.)
 7 FOR AN ADJUSTED STANDARD FROM 35) AS 00-012
 8 ILL. ADM. CODE SECTIONS 218.401(a),)
 9 (b), and (c) (the "FLEXOGRAPHIC)
 10 PRINTING RULE"),)
 11)

8

9

10 The PROCEEDINGS held before JOHN
 11 KNITTLE, Hearing Officer, taken stenographically
 12 before GEANNA M. IAQUINTA, CSR, a notary public
 13 within and for the County of Cook and State of
 14 Illinois, at 118 West Cook Street, Libertyville,
 15 Illinois, on the 15th day of November, A.D.,
 2000, scheduled to commence at 10:30 a.m.

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

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3 ILLINOIS POLLUTION CONTROL BOARD,
4 100 West Randolph
5 Suite 11-500
6 Chicago, Illinois 60601
7 (312) 814-3629

8 BY: MR. JOHN KNITTLE, Hearing Officer, and
9 MR. BRAD HALLORAN

10

11 JOHNSON & BELL,
12 55 East Monroe Street
13 Suite 4100
14 Chicago, Illinois 60603
15 (312) 372-0770
16 BY: MS. SUSAN W. HORN

17

18 Appeared on behalf of Vonco Products,
19 Inc.,

20

21 ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,
22 1021 North Grand Avenue East
23 P.O. Box 19276
24 Springfield, Illinois 62794
BY: MS. BONNIE SAWYER and MR. DAVID
BLOOMBERG

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|----|-------------------------|-------|
| 1 | I N D E X | |
| 2 | | |
| 3 | | PAGES |
| 4 | THE WITNESSES: | |
| 5 | JOHN LaROI | |
| 6 | Direct Examination | |
| 7 | by Ms. Horn..... | 15-21 |
| 8 | | |
| 9 | RICHARD TRZUPEK | |
| 10 | Direct Examination | |
| 11 | by Ms. Horn..... | 22-37 |
| 12 | Cross-Examination | |
| 13 | by Ms. Sawyer..... | 37-38 |
| 14 | Redirect Examination | |
| 15 | by Ms. Horn..... | 38-40 |
| 16 | Recross-Examination | |
| 17 | by Ms. Sawyer..... | 40-42 |
| 18 | Re-Redirect Examination | |
| 19 | by Ms. Horn..... | 43-43 |
| 20 | | |
| 21 | | |
| 22 | | |
| 23 | | |

L.A. REPORTING (312) 419-9292

4

1 HEARING OFFICER KNITTLE: My name is John
2 Knittle. I'm the hearing officer with the
3 Pollution Control Board. I'm also the assigned
4 hearing officer to this case, which is Adjusted
5 Standard 2000-12, In the Matter of Petition of:
6 Petition of Vonco Products, Incorporated, for an
7 Adjusted Standard from 35 Ill. Adm. Code
8 Sections 218.401(a), (b), and (c) (the "Flexographic
9 Printing Rule").

10 Today's date is November 15th. It
11 is approximately 10:40 a.m. I want to note for
12 the record that Pollution Control Board employee
13 Brad Halloran is with us here today. Brad is a
14 hearing officer as well. We're going to run
15 this hearing pursuant to Section 106.806, which
16 is the order of hearing for general adjusted
17 standards.

18 As noted the previous two days, we
19 are not running this hearing according to
20 Subpart E, which is the air adjusted standard
21 procedures. Section 106.501 designates the
22 scope and applicability of that section and is

23 only applied when an adjusted standard is
24 brought pursuant to 35 Ill. Adm. Code 212.126.

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5

1 It's my understanding both Ms. Horn and Ms. Sawyer
2 have agreed in the past that this, too, is not
3 brought pursuant to that section.

4 Is that correct, Ms. Horn?

5 MS. HORN: That's correct.

6 HEARING OFFICER KNITTLE: Ms. Sawyer, do
7 you agree with that?

8 MS. SAWYER: Yes.

9 HEARING OFFICER KNITTLE: So we're going
10 to run it according to the section already
11 noted, 106.806.

12 At this point in time, I'd like to
13 have the parties identify themselves, starting
14 with the petitioner.

15 MS. HORN: My name is Susan Horn,
16 H-o-r-n. I'm the attorney with Johnson & Bell
17 in Chicago for the Petitioner, Vonco Products.
18 I have with me today Mr. John LaRoi. It's
19 L-a-R-o-i. He's president and general --
20 vice-president and general manager of Vonco
21 Products and Rich Trzupsek, who is an

22 environmental consultant with Huff & Huff.

23 HEARING OFFICER KNITTLE: And for the
24 IEPA?

L.A. REPORTING (312) 419-9292

6

1 MS. SAWYER: Good morning. I'm Bonnie
2 Sawyer. I'm an assistant counsel with the
3 Illinois Environmental Protection Agency, and
4 with me today is David Bloomberg. He is an
5 environmental engineer with our agency.

6 HEARING OFFICER KNITTLE: Thank you, Ms. Sawyer.
7 I want to note again for the record, and I've
8 noted this a couple times now, but I do it for
9 every case, that I will not be making the
10 ultimate decision in this matter. That ruling
11 will come from the Illinois Pollution Control
12 Board, which is a board comprised of several
13 members located throughout the state of Illinois
14 chosen for their environmental expertise and
15 knowledge.

16 I'll be ruling on any evidentiary
17 matters and any other issues that arise during
18 the hearing, and I hope -- and my job is to
19 ensure an orderly hearing which will provide the
20 Board with a concise and clear record on which

21 to base its decision.

22 At this point in time, do we have
23 any preliminary matters before we get started
24 with opening statements?

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7

1 MS. HORN: No.

2 MS. SAWYER: No.

3 HEARING OFFICER KNITTLE: Both parties
4 indicate no.

5 Ms. Horn, your opening statement,
6 please.

7 MS. HORN: Vonco Products, Inc. is
8 seeking an adjusted standard from 35 Ill. Adm.
9 Code Subpart H, Section 218.401(a), (b), and
10 (c), known as the Flexographic Printing Rule as
11 it applies to the emissions of volatile organic
12 material, or VOM, from its one central emission
13 flexographic printing press.

14 The evidence will show that Vonco
15 operates this flexographic printing press to
16 print images using inks onto high slip
17 polyethylene film, which is then converted into
18 a package for the medical, industrial, and
19 retail industries.

20 The evidence will show that Vonco
21 has been working with the Illinois Environmental
22 Protection Agency since 1994 to address
23 difficulties with the Flexographic Printing
24 Rule. On May 17th, 1999, Vonco filed a petition

L.A. REPORTING (312) 419-9292

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1 seeking a variance from the rule.

2 Following subsequent negotiations
3 with the IEPA, Vonco realized that the proposed
4 relief that it was seeking was better applied as
5 an adjusted standard. Therefore, Vonco
6 dismissed its petition for a variance and filed
7 the present petition for an adjusted standard.

8 The specific regulation from which
9 Vonco seeks an adjusted standard requires the
10 flexographic printers to use inks that contain
11 either, one, no more than 40 percent VOM,
12 excluding water, by volume or, two, no more than
13 25 percent VOM by volume of the volatile content
14 of the ink. If a source cannot use water-based
15 inks, then the source must design and apply an
16 approved control device. If a source chooses to
17 comply with the Flexographic Printing Rule by
18 equipping the flexographic printing press with

19 an add-on control, then that control device must
20 reduce the captured VOM emissions by at least 90
21 percent by weight or achieve an overall
22 reduction of 60 percent in VOM emissions by
23 alternative control systems that have been
24 approved by the IEPA and the United States

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9

1 Environmental Protection Agency or USEPA.

2 As the evidence will show, the
3 regulation from which Vonco requires an adjusted
4 standard applies to sources with a potential to
5 emit 25 tons per year or more of VOM. The
6 initial RACT regulations applied to major
7 sources with actual VOM emissions in excess of
8 100 tons per year.

9 In response to the adoption of the
10 federal implementation plan, the Board amended
11 the RACT rules to require that all Chicago area
12 sources with maximum theoretical emissions of at
13 least 100 tons per year to implement RACT.

14 Pursuant to Section 182(d) of the
15 Clean Air Act, individual states within severe
16 ozone nonattainment areas are required to
17 include all sources with the potential to emit

18 of at least 25 tons per year as major sources,
19 and those states must also adopt RACT
20 regulations applicable to those sources.

21 Therefore, the Illinois Pollution
22 Control Board established the requirements
23 described in the Flexographic Printing Rule.
24 The evidence will show that Vonco is located in

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10

1 Lake Villa, Illinois, in Lake County, which is
2 part of the Chicago area designated as a severe
3 ozone nonattainment area. Therefore, it is
4 subject to the requirements in the Flexographic
5 Printing Rule.

6 The regulation of general applicability
7 from which Vonco seeks an adjusted standard does
8 not specify a level of justification for an
9 adjusted standard. Therefore, the requirements
10 in Section 28.1 of the Illinois Environmental
11 Protection Act found at 35 ILCS 5/28.1 apply.
12 Section 28.1 of the Act states that the Board
13 may grant individual adjusted standards upon
14 proof that, one, the factors relating to the
15 petitioner are substantially and significantly
16 different; two, the existence of those factors

17 justifies an adjusted standard; three, the
18 requested standard will not result in adverse
19 environmental or health effects; and, four, the
20 proposed adjusted standard is consistent with
21 federal law.

22 As the evidence will show, these
23 four factors have been met because Vonco cannot
24 use water-based inks for its product and because

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11

1 the approved control technologies will work only
2 at unreasonable costs. Therefore, an adjusted
3 standard is necessary for Vonco.

4 HEARING OFFICER KNITTLE: Thank you, Ms. Horn.

5 Ms. Sawyer, do you have an opening
6 statement?

7 MS. SAWYER: Yes, I do.

8 Good morning. My name is Bonnie
9 Sawyer. I'm representing the Illinois
10 Environmental Protection Agency in this matter.
11 Our agency has had the opportunity to review
12 Vonco's petition for an adjusted standard, and
13 we have filed a response with the Pollution
14 Control Board.

15 In this response, we have

16 recommended that the Board grant Vonco an
17 adjusted standard subject to certain
18 conditions. I just wanted to emphasize one
19 condition that we are requesting the Board
20 impose on any adjusted standard granted to this
21 facility.

22 The petition requested that
23 recordkeeping be maintained as a monthly
24 average. We are recommending to the Board that

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12

1 any adjusted standard granted impose daily
2 recordkeeping upon the facility similar to the
3 recordkeeping required under the general rule of
4 applicability, the Flexographic Printing Rule.

5 In another matter in the original
6 petition, Vonco suggested that an annual
7 limitation on emissions of 100 tons per year be
8 imposed on the adjusted standard. We are
9 recommending that the adjusted standard should
10 not include an annual limitation on emissions.
11 Vonco's permit currently limits them in their
12 annual emissions of volatile organic material,
13 and we are recommending that the permit
14 limitation be maintained as the appropriate

15 method to address annual emissions.

16 We have requested that 12 conditions
17 be imposed on an adjusted standard. I wanted to
18 clarify two of them, and these 12 conditions are
19 found in our response. In condition four, it
20 reads, Vonco must perform alone, or in
21 conjunction with others, three experiments each
22 year, including any experiments requested by the
23 Illinois EPA of alternative inks to determine if
24 these inks are compliant with the Flexographic

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13

1 Printing Rule and technically feasible for
2 Vonco's printing operations.

3 We wanted to clarify that any
4 experiments requested by the Illinois EPA would
5 be included within the three that the facility
6 would be required to perform alone or in
7 conjunction with other facilities and would not
8 be an additional requirement to perform
9 experiments.

10 Another condition that I wanted to
11 clarify is condition seven. It reads, Vonco
12 shall not operate any other printing press at
13 its Elm Hurst, Illinois -- pardon me, at its

14 Lake Villa, Illinois, source without full
15 compliance with the requirements of the
16 Flexographic Printing Rule.

17 We want to clarify that this should
18 read, Vonco shall not operate any other
19 flexographic printing press at its Lake Villa,
20 Illinois, source without full compliance with
21 the requirements of the Flexographic Printing
22 Rule. We didn't intend for this condition to
23 essentially require a printing press that would
24 otherwise not be subject to the flexographic

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14

1 rule to comply with that rule.

2 It is our understanding that the
3 petitioner has agreed to the 12 conditions that
4 we have requested that the Board impose on an
5 adjusted standard, and based on previous
6 discussions, it's my understanding that the
7 petitioner will make a statement to that effect
8 on the record in today's proceeding.

9 HEARING OFFICER KNITTLE: Is that your --
10 are you finished, aside from her responsive
11 statement --

12 MS. SAWYER: Yes, I am.

13 HEARING OFFICER KNITTLE: -- with your
14 opening statement?

15 Ms. Horn, do you concur with that
16 assessment?

17 MS. HORN: I do. We have -- Vonco
18 Products has agreed to all 12 conditions.

19 HEARING OFFICER KNITTLE: Okay.

20 MS. HORN: Could we go off the record
21 just a minute?

22 HEARING OFFICER KNITTLE: Yes, we can.

23 (Discussion had
24 off the record.)

L.A. REPORTING (312) 419-9292

15

1 HEARING OFFICER KNITTLE: We're back on
2 the record.

3 Ms. Horn, do you want to start with
4 your case in chief and call your first witness,
5 please?

6 MS. HORN: Sure. I'd like to call John
7 LaRoi.

8 HEARING OFFICER KNITTLE: Mr. LaRoi, have
9 a seat. The court reporter will swear you in.

10 (Witness sworn.)

11 WHEREUPON:

12 J O H N L a R O I,
13 called as a witness herein, having been first
14 duly sworn, deposeth and saith as follows:

15 D I R E C T E X A M I N A T I O N

16 by Ms. Horn

17 Q. Please state your name for the record.

18 A. It's John LaRoi. That's L-a-R-o-i.

19 Q. Where do you live?

20 A. 1716 Eric Lane in Libertyville, Illinois.

21 Q. Where are you employed?

22 A. At Vonco Products, which is in Lake
23 Villa, Illinois.

24 Q. What is your position with Vonco

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16

1 Products?

2 A. I am the vice-president and general
3 manager.

4 Q. What are your duties as vice-president
5 and general manager?

6 A. I oversee all the manufacturing and
7 printing operations at the company.

8 Q. How many employees does Vonco have?

9 A. Between 75 and 85.

10 Q. Does Vonco use any type of a printing

11 press in its operations?

12 A. Yes, we do. We have one flexographic
13 central impression printing press.

14 Q. For what is it used?

15 A. It's to surface print to polyethylene for
16 the custom packaging that we manufacture.

17 Q. Is Vonco -- compared to other printers in
18 this industry, is Vonco large or small?

19 A. We are considered probably a job shop
20 based on the small runs that we do. It would be
21 a job shop.

22 Q. How does that relate to running your
23 presses?

24 A. It means we have several changeovers. We

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17

1 run a lot of short runs. So there will be
2 several jobs we would run during the day.

3 Q. Approximately, how many jobs would you
4 complete in a typical day?

5 A. Anywhere between five and ten.

6 Q. What would be the shortest job you've run
7 and the longest job?

8 A. The shortest is just about an hour, and
9 the longest run that we've done is about three

10 days, and that's on a rare occasion.

11 Q. What brand is Vonco's press?

12 A. We have a Uteco.

13 Q. And how old is it?

14 A. It's nine years old.

15 Q. Could you explain very briefly how it
16 works?

17 A. It's a central impression press. What
18 you do is you draw a film through and you apply
19 ink. It's a six-color press. So at six
20 different stations, ink gets applied, it's
21 dried, and then the film advances to the next
22 station, and the ink gets reapplied, and it
23 continues through the six stations, gets dried,
24 and rewind.

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18

1 Q. How do the drying stations work?

2 A. At each drying station, there's heated
3 forced air that blows across the web, and then
4 there's a section that evacuates and pulls the
5 heated air away that dries the ink.

6 Q. What type of products does Vonco produce?

7 A. We make medical products, products for
8 industrial. We do promotional and retail

9 packaging, and I can be more specific.

10 Q. I think that's sufficient.

11 A. Okay.

12 Q. What type of ink does Vonco use?

13 A. We use solvent-based ink.

14 Q. Do you know if the solvents in the ink

15 contain VOM?

16 A. Yes, they do.

17 Q. Do you add any additional solvent during

18 the printing operations?

19 A. Yes, we do.

20 Q. Why do you do that?

21 A. You have to cut the inks to allow the

22 viscosity to be at a point that you can apply it

23 and it will dry.

24 Q. Did you do -- did you experiment with any

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19

1 water-based inks?

2 A. Yes, I have. I've run at least six

3 water-based ink trials.

4 Q. What's the difference, besides from the

5 actual water versus solvent?

6 Is that the only difference with a

7 water-based ink?

8 A. The difference between the solvent and
9 the water-based ink? Is that what you're
10 asking?

11 Q. Right.

12 A. The water-based ink, it uses water to
13 carry the pigments and the solids to apply, and
14 it dries differently. It runs differently.
15 Solvent is different. I guess I don't know how
16 specific you want me to get.

17 Q. How about what did Vonco do with
18 water-based ink trials?

19 A. What we did in our water-based trials is
20 we tested to make sure that the color was
21 acceptable. We made sure that we could run our
22 press at an acceptable speed. We made sure
23 there was adhesion. An adhesion is where the
24 ink must adhere to the substrate without coming

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1 off, and the way you test that is with a piece
2 of tape, pull it off.

3 We make sure it cures okay, and we
4 monitor the cleanup. We had to make sure that
5 we could run the press and then tear it down,
6 clean it up, and not damage the press, the

7 printing plates, or the Anilox printing rolls or
8 Anilox rolls.

9 Q. What were the results of your trials?

10 A. We found out that, number one, we could
11 not get an acceptable adhesion. Number two, we
12 couldn't run the press fast enough to really
13 justify using the ink.

14 The cleanup was excessive. We had
15 ink dry on our printing plates. We had ink dry
16 in our ceramic laser engraved Anilox rolls that
17 we had to send out and clean. It had to be
18 ultrasonically cleaned. In one case, we had one
19 roller I had to send out and get reconditioned
20 because we couldn't get the water-based pigments
21 out of the pores.

22 We had a customer also state that
23 they would not accept the color -- the depth of
24 color, the sheen on the water-based product and

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21

1 wanted the solvent-based ink.

2 Q. Do you happen to know what the cost of
3 these trials to Vonco was?

4 A. It cost me around \$18,000; press time,
5 operators, cleanup, and ink.

6 Q. Have you participated in these adjusted
7 standard proceedings leading up to the hearing?

8 A. Yes. Yes, I have.

9 Q. Could you explain your involvement?

10 A. I got involved basically in the beginning
11 with BEMA films. We first started talking about
12 Title 5, and it's been trips to Springfield and
13 working with the Illinois EPA and working with
14 other converters to kind of understand the rule
15 and see how it applied. So it's been since we
16 all started.

17 MS. HORN: Thank you. I have no further
18 questions.

19 HEARING OFFICER KNITTLE: Ms. Sawyer, any
20 cross-examination?

21 MS. SAWYER: No questions.

22 HEARING OFFICER KNITTLE: Thank you.

23 Sir, you can step down.

24 Ms. Horn, your next witness, please.

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1 MS. HORN: Our next and hopefully last
2 witness will be Rich Trzupsek.

3 HEARING OFFICER KNITTLE: Mr. Trzupsek,
4 we're going to have Ms. Iaquina swear you in,

5 please.

6 (Witness sworn.)

7 HEARING OFFICER KNITTLE: Ms. Horn, your
8 witness.

9 WHEREUPON:

10 R I C H A R D T R U P E K,
11 called as a witness herein, having been first
12 duly sworn, deposeth and saith as follows:

13 D I R E C T E X A M I N A T I O N
14 by Ms. Horn

15 Q. Please state your name for the record.

16 A. It's Richard Trzuppek.

17 Q. Could you spell your last name for the
18 court reporter?

19 A. It's spelled T, as in Tom, r-z-u, P, as
20 in Peter, e-k.

21 Q. Where do you live?

22 A. In Streamwood, Illinois.

23 Q. Where are you currently employed?

24 A. At Huff & Huff, Incorporated of LaGrange,

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1 Illinois.

2 Q. What do you do for Huff & Huff?

3 A. I am the manager of air quality. We are

4 a firm that does environmental consulting for
5 industry.

6 Q. What is your educational background?

7 A. I have a bachelor's degree in chemistry
8 from Loyola University of Chicago.

9 Q. Do you have any training or experience in
10 air regulations, specifically with regard to the
11 printing industry?

12 A. I do.

13 Q. Could you tell us what it is?

14 A. I have been involved with the printing
15 industry in regard to compliance with air
16 quality regulations and control issues for
17 approximately 18 years.

18 Q. Are you familiar with Vonco Products'
19 printing operations?

20 A. I am.

21 Q. And how are you familiar with them?

22 A. I've been working with Vonco for the past
23 three years in regards to coming into compliance
24 with the Flexographic Printing Rule.

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1 Q. Were you involved in the negotiations and
2 the analysis and calculations that formed the

3 basis for Vonco's petition for an adjusted
4 standard?

5 A. I was.

6 Q. Could you briefly describe the
7 Flexographic Printing Rule?

8 A. The Flexographic Printing Rule, in
9 essence, presents three options for control.
10 One is the use of an add-on control device,
11 meaning certain control requirements specified
12 in the rule.

13 The second is the use of compliant
14 inks that meet certain VOM percentages that are
15 specified in the rule, and the third is a use of
16 a mixture of compliant and noncompliant inks
17 that on a daily weighted average basis, using
18 calculations specified in the rule, meet the VOM
19 percentages specified in the rule.

20 Q. Could you explain the technical
21 difference between using solvent-based inks and
22 water-based inks?

23 A. Solvent-based inks and water-based inks
24 use different mechanisms to set the image and

L.A. REPORTING (312) 419-9292

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1 the protective film that forms on the image that

2 helps with adhesion in protecting it. In a
3 solvent-based ink, the solvent evaporates and
4 leaves the pigment and film formers on the
5 image.

6 The solvent evaporates relatively
7 quickly, which it needs to do because there's
8 very little time between print stations and the
9 plastic film does not absorb any of the
10 pigments. So it has to be left on the surface
11 very quickly in between the drying stations.

12 A water-based ink uses a chemical
13 action to set the image and form the film. It's
14 actually a catalytic action cross-linking
15 between the components of the film, and it does
16 not happen as quickly. The water does not flash
17 off as quickly as the solvents do, and you also
18 need additional time for the cross-linking
19 components to cure and set the image.

20 Q. Okay. Did you hear Mr. LaRoi's testimony
21 about Vonco's experiments with water-based inks?

22 A. I did.

23 Q. Do you agree -- based on your experience,
24 do you agree with his conclusions?

1 A. I do.

2 Q. Mr. LaRoi also testified that Vonco adds
3 additional solvents to the inks.

4 How much do the inks contain when
5 they come from the manufacturer and how much
6 solvent do printers in general have to add?

7 A. As supplied by the manufacturer, inks may
8 contain anywhere from typically 50 to 70
9 percent, and I'd say 60 percent would be a good
10 average of solvent. As applied at the stations,
11 they may contain anywhere from 60 to 80 percent
12 and probably the upper 70s would be a good,
13 typical average.

14 Q. Okay. Could you explain briefly what a
15 nonattainment area is?

16 A. Nonattainment area is an area which has
17 not achieved compliance with national ambient
18 air quality standards for a criteria pollutant.

19 Q. Is Vonco located in a nonattainment area?

20 A. They are located in a nonattainment --
21 the Chicago metropolitan nonattainment area for
22 ozone, a six-county area, and it includes Lake
23 County in which Vonco is located.

24 Q. Could you briefly describe the three

1 add-on control options available to Vonco?

2 A. Vonco can use some form of oxidation,
3 either catalytic or thermal. They can use
4 carbon absorption, or they could use gas
5 absorption, which is some form of a scrubber.

6 Q. In your opinion, are any of these three
7 appropriate for Vonco?

8 A. Yes. The oxidation methods are
9 technically viable for Vonco. Carbon absorption
10 is technically not viable for Vonco. Some of
11 the alcohols don't absorb well and, further,
12 when the alcohols are desorbed through passage
13 of steam through the carbon bed and then
14 recondenses to water, some of the alcohols are
15 very volatile and would not stay in the water
16 and allow them to easily achieve their control
17 requirements.

18 Gas absorption or a scrubber also
19 similarly absorbs the alcohols and other VOCs in
20 the water, but, again, because of volatility of
21 these VOCs or VOMs, they tend not to stay in the
22 water rendering that one difficult to achieve
23 control requirements as well.

24 Of the basic oxidation options,

1 catalytic oxidation is possible for some
2 printers. Other printers have difficulty with
3 it because of contamination to the catalyst.
4 The choice that we made in the case of Vonco was
5 that they would rather not take the chance on
6 catalytic and look primarily at thermal
7 oxidation.

8 Q. Did you do any analysis of the cost of
9 different options for control?

10 A. Yes, I did.

11 Q. Could you explain briefly?

12 A. We examined the cost control using USEPA
13 standard control cost methodology. That was a
14 cooperative effort between ourselves and IEPA
15 until we got to a point where we agreed on the
16 control cost numbers.

17 Q. Okay. What are the basic terms of the
18 adjusted standard that IEPA has proposed and
19 Vonco has agreed to?

20 A. The adjusted standard sets a VOM limit
21 for the as-applied inks that Vonco uses of 82
22 percent on a daily weighted average basis.

23 Q. Is there a change to that 82 percent
24 anywhere else in the conditions?

1 A. There's a provision for the ozone season
2 that the -- the basis for ERMs purposes will be
3 a 72 percent basis for calculating baseline for
4 the ERM season.

5 Q. Does the proposed adjusted standard
6 contain an annual emissions limit?

7 A. It does not.

8 Q. Why not?

9 A. Because the annual emissions limit is
10 provided for in their current operating permit.

11 Q. Does the proposed adjusted standard
12 require daily recordkeeping or monthly
13 recordkeeping?

14 A. Daily recordkeeping.

15 Q. And why is that?

16 A. Because the standard -- national ambient
17 air quality standard to which the rule -- which
18 provides the reason for the rule being imposed
19 provides for a daily limit on ozone
20 concentration in ambient air.

21 Q. Is it your understanding that Vonco has
22 agreed to do daily recordkeeping?

23 A. It is.

24 Q. In your opinion, will daily recordkeeping

1 be difficult for Vonco?

2 A. I believe daily recordkeeping will be
3 difficult for Vonco.

4 MS. HORN: At this time, I would like to
5 show Mr. Trzupsek what is marked as Petitioner's
6 Exhibit 1, which is the videotape, which I don't
7 have in front of me.

8 Please let the record reflect that
9 I've previously provided Ms. Sawyer and
10 Mr. Bloomberg with a copy of Exhibit 1.

11 BY MS. HORN:

12 Q. Mr. Trzupsek, what is Exhibit 1?

13 A. It's a videotape of a job that was
14 performed at Vonco Products that I observed in
15 order to document the typical procedures for
16 printing at Vonco and ink mixing procedures that
17 go along with that.

18 Q. Did you act as the narrator on the video?

19 A. I did.

20 Q. Why did Vonco make the video?

21 A. In order to document what is done to mix
22 inks and to maintain ink quality during their
23 printing jobs.

24 MS. HORN: At this time, I would like to

1 show Mr. Trzupsek what's marked as Petitioner's
2 Exhibit 2. Please also let the record reflect
3 that I have previously provided Ms. Sawyer and
4 Mr. Bloomberg with a copy of Exhibit 2.

5 BY MS. HORN:

6 Q. Mr. Trzupsek, can you identify this
7 exhibit?

8 A. Yes, I can.

9 Q. What is it?

10 A. It is the job that was printed when the
11 videotape was filmed. It's a small trash bag on
12 a polyethylene film.

13 MS. HORN: At this time, I'd like to
14 request that Petitioner's Exhibits 1 and 2 be
15 entered into evidence.

16 HEARING OFFICER KNITTLE: Any objection
17 to Petitioner's No. 1, Ms. Sawyer?

18 MS. SAWYER: No objection.

19 HEARING OFFICER KNITTLE: That will be
20 admitted.

21 Petitioner's No. 2, the small trash
22 bag, any objection to that?

23 MS. SAWYER: No objection.

24 HEARING OFFICER KNITTLE: That, too, will

1 be admitted.

2 MS. HORN: At this time, I request the
3 hearing officer's permission to have Mr. Trzupsek
4 explain the printing operation shown on the
5 videotape.

6 HEARING OFFICER KNITTLE: Any objection,
7 Ms. Sawyer?

8 MS. SAWYER: No objection.

9 HEARING OFFICER KNITTLE: Please proceed,
10 sir.

11 BY THE WITNESS:

12 A. We are at 9:40:31 in the videotape. I
13 have muted the tape for purposes of the hearing,
14 but there is a narrative provided with the tape
15 as well.

16 We're looking at Vonco's printing
17 press at 9:40:50 at this point before the job
18 has started. We'll fast forward to something
19 more interesting. The time of the tape is
20 9:45:23, and we're looking at Vonco's ink room.
21 This view gives us a partial view of the
22 different inks that Vonco stores in five-gallon
23 pails.

24

They're primarily reworked inks.

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33

1 Those are inks that are custom blended to a
2 particular color and then stored for later
3 reuse, recycling rather than being disposed of.
4 These inks are distinguished from virgin inks,
5 which at 9:45:54 we see a couple of virgin inks
6 from which the blended colors are made, reflex
7 blue and cyan green are the two that are
8 identified on the sign. They're stored in
9 55-gallon drums.

10 We're at 9:50:07 and we're looking
11 at the plate-making operation. At this point,
12 the technician is wiping down the printing
13 plate. It's one use of solvent basically
14 showing the various ways solvents are used in
15 the printing operation. In this case, he's
16 simply cleaning up the roller preparatory to
17 putting the printing plate on it.

18 The time is 9:52. We're looking at
19 a solvent being dispensed for cleanup purposes
20 and a container and dispenser for cleanup
21 solvent. The time is 10:05:10 and we're looking
22 at the final printed product as it's supposed to

23 look and they're flipping through the various
24 colors, color separation that is involved in the

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34

1 printing process so you can see how the
2 different colors are laid on in stages.

3 The time is 10:06:24 and we're
4 looking at a panetone color key and basically
5 examples of the different colors that are
6 possibly mixed from the base colors and the wide
7 variety of colors that can be used by Vonco's
8 customers.

9 The time is 10:16:52 and we're
10 looking at custom blending of one of the colors,
11 and this being done by mixing a couple of base
12 blues in proportion from the panetone chart.

13 The time is 10:18:24. We're looking at
14 viscosity checking of the color. This is done
15 using a number two zone cup. It dispenses a
16 predetermined amount of ink. The operator
17 drains the ink through a hole in the bottom of
18 the cup and times it.

19 Viscosity is expressed in terms of
20 seconds it takes for the ink to completely run
21 out, and the specs for the particular job will

22 be in so many seconds viscosity. In order to
23 adjust the viscosity, the operator will most
24 often add solvent to bring the time down. If he

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35

1 should overshoot the margin, he might add a
2 little bit of ink as well.

3 The amount of solvent that's
4 contained in the ink is roughly proportional to
5 the viscosity and serves as a good surrogate
6 measurement and not a solvent. That's there.
7 We see the operator adding solvent in the
8 typical fashion at 10:19:22.

9 We're at 10:45:13 and we're looking
10 at the actual ink pails on the press. The pail
11 is used to dispense the ink. There's pumps
12 attached to the pail with covers that pump the
13 ink to the ink station and then recirculate it
14 back down. It keeps the viscosity constant and
15 the ink quality constant.

16 We're looking at a printing unit at
17 10:45:44 showing yellow ink flowing. The
18 balance of the tape goes through the job. It
19 shows the print stations, the drying stations,
20 and viscosity adjustments.

21 What is emphasized here is the
22 number of viscosity adjustments that are made,
23 the number of solvent additions that are made
24 and that they are made for each color in the job

L.A. REPORTING (312) 419-9292

36

1 so that we find that typical number of absolute
2 measurements one would make if one tried to
3 account for every drop of solvent at every point
4 would be typically in, you know, more than 100
5 measurements very easily.

6 However, the target viscosities they
7 shoot for we see is a constant number and
8 provides a good means of knowing what the
9 as-applied content should be. We also
10 emphasize, as we go through the tape, that the
11 solvent is constantly evaporating and so that's
12 why they're constantly adding solvent in order
13 to make up -- to try to keep a given amount of
14 solvent in the ink as the job goes on. We'll
15 stop it there.

16 BY MS. HORN:

17 Q. Thank you, Mr. Trzupsek. I have just one
18 final question that I didn't ask you, but I
19 will.

20 Could you tell me when we were
21 discussing the costs of the add-on control
22 options, could you tell me the cost of
23 oxidation, cost in cost per ton number?
24 A. The number we submitted to the state?

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37

1 Q. I think that's only -- there's only one.

2 A. For the two oxidation options that we
3 found viable, recuperative and regenerative, we
4 came up with a recuperative number of \$39,858
5 per ton and a regenerative number of \$34,156 per
6 ton.

7 MS. HORN: I have nothing further.

8 HEARING OFFICER KNITTLE: Ms. Sawyer, do
9 you have a cross-exam for this witness?

10 MS. SAWYER: I think so, but just one
11 minute.

12 HEARING OFFICER KNITTLE: Sure. Let's go
13 off.

14 (Discussion had
15 off the record.)

16 HEARING OFFICER KNITTLE: Ms. Sawyer,
17 your cross-examination.

18 C R O S S - E X A M I N A T I O N

19 by Ms. Sawyer

20 Q. Good morning, Mr. Trzupsek.

21 You were -- in the video, you were
22 showing solvent that's added to inks for a given
23 print job.

24 Would it be feasible to measure the

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38

1 amount of solvent added on a given print job
2 based on the volume used from the containers or
3 the weight of the container before the job and
4 after the job?

5 A. Yeah. I mean, that -- you would use more
6 than one container in a given job, but I think
7 it may be viable to count the number of
8 containers used at a constant basis or to, you
9 know, weigh on a daily basis the solvent drum
10 from which the solvent originated, something to
11 that sort, yes.

12 MS. SAWYER: Okay. I have nothing
13 further.

14 MS. HORN: I just have --

15 HEARING OFFICER KNITTLE: Any redirect?

16 MS. HORN: Just one. Now I forgot it.

17 R E D I R E C T E X A M I N A T I O N

18

by Ms. Horn

19 Q. If you were weighing the solvent, the
20 total amount of solvent added, would that give
21 you an accurate reading as to the VOM content of
22 the ink at any given time?

23 A. The amount of solvent added would not
24 correspond directly to the VOM content of the

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39

1 ink as applied because you also have evaporative
2 losses in the ink to account for as well.

3 Q. And would you have to do that same
4 accounting for each of the number of inks that
5 were used on the job?

6 A. I'm sorry. I didn't understand your
7 question.

8 Q. Would you count the solvent for each ink
9 as applied or would you count the total solvent
10 used in your example?

11 A. I think that is open to interpretation
12 and would depend on whatever is finally agreed
13 to between the Agency and Vonco as to what's the
14 most accurate and feasible plan for keeping
15 daily records.

16 MS. HORN: Okay. I have nothing

17 further.

18 HEARING OFFICER KNITTLE: Recross, Ms.
19 Sawyer?

20 MS. SAWYER: Possibly.

21 HEARING OFFICER KNITTLE: Let's go off
22 the record again.

23 (Discussion had
24 off the record.)

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40

1 R E C R O S S - E X A M I N A T I O N

2 by Ms. Sawyer

3 Q. Mr. Trzupsek, in the adjusted standard
4 petition, you developed a percentage of VOM for
5 inks applied that would be used at the facility
6 as the adjusted standard and that number was 82
7 percent VOM weight -- I don't know, 82 percent.

8 Could you explain how you calculated
9 that 82 percent?

10 A. Yes. We looked at the mass of solvent
11 used on an annual basis, the VOM content of the
12 inks as supplied on an annual basis, and that,
13 of course, comes with a number higher than what
14 would be the actual as-applied VOM content.

15 So we backed off to what we thought

16 would be a reasonable percentage that would
17 represent the highest as-applied number.

18 Q. When you refer to as applied, you are
19 referring to the ink supplied from the pails to
20 the pan or the ink from the pan to the
21 printing -- printed substrate or is it the same
22 thing?

23 A. I would say it's the same thing.

24 Q. So it is one of those two areas that

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41

1 you're referring to as the as-applied content of
2 the inks?

3 A. Yes. It's recirculated.

4 Q. And in that respect, if there are
5 additions made that evaporate, they may not be
6 included in that?

7 A. I would say it depends -- it depends on
8 how you account for them, and if, for example, I
9 guess to clarify, if you counted every solvent
10 addition against an ink and said every time that
11 you added solvent you said it was increasing the
12 VOC content of the ink, by the end of a job, you
13 may show a particular ink to be out of
14 compliance with any standard, and if you took

15 that ink and put it back in and reworked it and
16 you counted the additional solvent additions
17 against it, you would show an ever-growing VOM
18 content.

19 That's not what actually happens.
20 They attempt to maintain a constant VOM
21 content. So it's not accurate to count every
22 solvent addition and say the VOM content is
23 increasing, and that's what I'm really trying to
24 get to. The VOM content doesn't increase; it's

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42

1 maintained.

2 Q. So when you add solvent to ink, though,
3 you're adding it because there was some
4 evaporation that occurred?

5 A. Absolutely.

6 Q. Okay.

7 A. And in accounting for the mass loss, I
8 mean, you have to account for all the solvent
9 additions, understood, but what the content is
10 you try to maintain as a flat line.

11 MS. SAWYER: Okay. Thank you. No
12 further questions.

13 HEARING OFFICER KNITTLE: Ms. Horn, a

14 re-redirect?

15 MS. HORN: I just need a minute.

16 HEARING OFFICER KNITTLE: Off.

17 (Discussion had
18 off the record.)

19 HEARING OFFICER KNITTLE: Let's go back
20 on the record. Do we have a re-redirect, Ms.
21 Horn?

22 MS. HORN: I just have one question, and
23 it's mainly to clarify Mr. Trzupsek's testimony.
24

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43

1 R E - R E D I R E C T E X A M I N A T I O N

2 by Ms. Horn

3 Q. Mr. Trzupsek, do you add solvent or does
4 Vonco add solvent to get the ink up to the
5 target viscosity?

6 A. Yes, they do. Initially, Vonco will add
7 solvent to the as-applied ink to reach what we
8 can call a target viscosity or running
9 viscosity, and then once they hit that running
10 viscosity, they will, as the job goes through,
11 add solvent to maintain that target.

12 So, for example, an ink may come in

13 at 60 percent VOC. They may bring it up to 75
14 percent VOC. Once they hit that target, which
15 corresponds to so many seconds of viscosity,
16 they will periodically add solvent to maintain
17 that higher VOC level.

18 MS. HORN: I have no further questions.

19 HEARING OFFICER KNITTLE: Ms. Sawyer, are
20 you going to have a three-time recross.

21 MS. SAWYER: No more questions.

22 HEARING OFFICER KNITTLE: Okay. Thank
23 you, sir. You can step down.

24 At this point in time, if there were

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44

1 members of the public present, they'd be able to
2 offer public comment. However, I want to note
3 for the record that there are no members of the
4 public comment -- public here to comment.
5 Excuse me.

6 I realize now I've been a bit
7 premature. Ms. Horn, do you have any other
8 witnesses?

9 MS. HORN: I do not.

10 HEARING OFFICER KNITTLE: Well, then what
11 I previously said still applies and members of

12 the public, were they here, would be able to
13 offer public comment.

14 For the record, there are no such
15 members of the public here. We are now going to
16 proceed with closing statements starting with
17 Ms. Horn.

18 MS. HORN: I have a very brief one.

19 Vonco requests that the Board grant
20 the proposed adjusted standard as an alternative
21 to the RACT regulations adopted by the Board in
22 the Flexographic Printing Rule. To require
23 Vonco to comply with the requirements of 35 Ill.
24 Adm. Code Subpart H, Section 218.401 would

L.A. REPORTING (312) 419-9292

45

1 result in substantial economic hardship to Vonco
2 with no corresponding or proportional
3 environmental benefit.

4 Moreover, it is not technically
5 feasible for Vonco to comply with the
6 Flexographic Printing Rule because, one,
7 water-based inks do not work for its products
8 and, two, an oxidizer, as the only control
9 device that works, presents unreasonable
10 expenses for design and installation.

11 Vonco has met the four factors in
12 Section 28.1 of the Act and, therefore, Vonco
13 Products respectfully requests that the Board
14 grant Vonco the proposed adjusted standard from
15 35 Ill. Adm. Code Subpart H, Section 218.401 as
16 that rule applies to the emissions of VOM from
17 the flexographic printing operations at Vonco
18 Products in Lake Villa, Illinois.

19 HEARING OFFICER KNITTLE: Thank you,
20 Ms. Horn.

21 Ms. Sawyer, do you have a closing
22 statement?

23 MS. SAWYER: Yes, I do.

24 Representatives of the Illinois EPA

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46

1 have reviewed the video that Vonco presented as
2 an exhibit today, and we believe that daily
3 recordkeeping is feasible for the facility. We
4 intend to work with the facility to come up with
5 the appropriate method to maintain daily
6 records.

7 To the extent that the method used
8 to demonstrate compliance with daily records
9 differs from the method used to determine the 82

10 percent standard requested in this proceeding
11 and to the extent that the daily recordkeeping
12 that will be maintained in the future indicates
13 that Vonco is able to meet a lower standard, we
14 would recommend that the adjusted standard be
15 adjusted to reflect that average, and that's all
16 that I had.

17 HEARING OFFICER KNITTLE: Thank you,
18 ma'am.

19 Any rebuttal closing argument,
20 Ms. Horn?

21 MS. HORN: I have none.

22 HEARING OFFICER KNITTLE: Thank you.
23 Let's go off the record.

24

L.A. REPORTING (312) 419-9292

47

1 (Discussion had
2 off the record.)

3 HEARING OFFICER KNITTLE: We're back on
4 the record after a brief off-the-record
5 discussion pertaining to posthearing briefs.
6 Both parties indicate that at this time they do
7 not want to file posthearing briefs.

8 Is that correct, Ms. Horn?

9 MS. HORN: That is correct.

10 HEARING OFFICER KNITTLE: Ms. Sawyer?

11 MS. SAWYER: Yes.

12 HEARING OFFICER KNITTLE: However, if, in
13 fact, any public comment is received in this
14 matter, the parties will have leave to come back
15 and ask me whether or not -- me for leave to
16 file posthearing briefs and we'll set up a
17 posthearing briefing schedule, and I would allow
18 that should any public comment be received in
19 this matter and that's any oral or written
20 public comment.

21 Speaking of public comments, we're
22 going to allow written public comments in this
23 matter to be filed 14 days from today, which
24 take us to November 29th. All public comments

L.A. REPORTING (312) 419-9292

48

1 must be received by November 29th, 2000. If
2 anything is received, once again, we'll redress
3 the briefing schedule situation. If, in fact,
4 no posthearing comments are received by that
5 date, however, the record will close and this
6 matter will be ready to be decided by the
7 Board.

8 It's about 11:35 a.m. We're going
9 to hold this open until 1:00 o'clock. We'll
10 take a recess and come back at 1:00 and make
11 sure that no members of the public wish to
12 comment on this matter.

13 Other than that, that is all I
14 have. I should note it now, though, that I am
15 required to make a credibility determination,
16 and based upon my legal judgment and experience,
17 I found no credibility issues with either of the
18 two witnesses giving testimony today. Okay.
19 Let's go off the record.

20 (Discussion had
21 off the record.)

22 (Break taken.)

23 HEARING OFFICER KNITTLE: We're back on
24 the record after a lunch recess. It's

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49

1 approximately 1:00 p.m. I want to note for the
2 record that there are no members of the public
3 present. If there were, they would be allowed
4 to give public comment. However, that is not
5 the case.

6 We've already closed up the hearing

7 and set the posthearing briefing schedule and
8 talked about the credibility determination. So
9 I just want to thank you all for coming.
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50

1 STATE OF ILLINOIS)
) SS.
2 COUNTY OF C O O K)

3

4 I, GEANNA M. IAQUINTA, CSR, do
5 hereby state that I am a court reporter doing

6 business in the City of Chicago, County of Cook,
7 and State of Illinois; that I reported by means
8 of machine shorthand the proceedings held in the
9 foregoing cause, and that the foregoing is a
10 true and correct transcript of my shorthand
11 notes so taken as aforesaid.

12

13

14

Geanna M. Iaquina, CSR
Notary Public, Cook County, IL
Illinois License No. 084-004096

15

16

17 SUBSCRIBED AND SWORN TO
18 before me this _____ day
19 of _____, A.D., 2000.

19

Notary Public

20

21

22

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24