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Pollution Control Board

BEFORE THE ILLINOIS

OARD 5 1 9 2002

IN THE MATTER OF:

PROPOSED SITE SPECIFIC
AIR POLLUTION REGULATIONS
APPLICABLE TO HORWEEN
LEATHER COMPANY OF
CHICAGO, ILLINOIS
35 Ill. Adm. Code 211.6170

R02- タワ (Site-Specific Rulemaking - Air)

NOTICE OF FILING

TO:

Clerk, Illinois Pollution Control Board State of Illinois Center 100 West Randolph Street Suite 11-500 Chicago, IL 60601 Illinois Environmental Protection Agency 1021 N. Grand Ave. East Springfield, IL 62702 Illinois Department of Natural Resources 524 South Second Street Springfield, IL 62701-1787

Illinois Attorney General 500 South Second Street Springfield, IL 62706

PLEASE TAKE NOTICE that on Tuesday, February 19, 2002, we filed the attached Petition for Site-Specific Rulemaking with the Clerk of the Illinois Pollution Control Board, a copy of which is herewith served upon you.

Respectfully submitted,

HORWEEN LEATHER COMPA

Madan

Roy M. Harsch Steven J. Murawski GARDNER, CARTON & DOUGLAS 321 North Clark Street Chicago, Illinois 60610 (312) 644-3000

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	FEB 1 9 2002
je	STATE OF ILLINOIS R02- 2D Pollution Control Board
PROPOSED SITE SPECIFIC)	R02- 20 Foliation Control Board
AIR POLLUTION REGULATIONS)	(Site-Specific Rulemaking - Air)
APPLICABLE TO HORWEEN)	
LEATHER COMPANY OF)	
CHICAGO, ILLINOIS)	
35 Ill. Adm. Code 211.6170	

PETITION FOR SITE-SPECIFIC RULEMAKING

Horween Leather Company ("Horween") hereby petitions the Illinois Pollution Control Board ("Board") for a Site-Specific Rule pursuant to 35 Ill. Adm. Code Part 102, Subpart B and Sections 27 and 28 of the Illinois Environmental Protection Act, 415 ILCS 5/27-5/28 ("Act"). Horween requests that the Board issue a site-specific rule from 35 Ill. Adm. Code 211.6170 and 218.926 to change the control requirements as applied to a small amount of new specialty leathers that Horween would like to produce. The requested rule change would allow Horween to continue to produce its existing specialty leathers pursuant to the existing regulations, and develop new specialty leather products in compliance with environmental law pursuant to these requested regulations.

Introduction

Horween is submitting this petition based on inherent technical restraints associated with making new types of specialty leather to meet customers' demands driven by the fashion industry. The severe economic downturn in the U.S. leather industry has greatly reduced the production of leather and, as a result, the viability of Horween's business. In addition, there is a negligible environmental impact in allowing Horween to produce these new specialty leather products. In reality, Horween would not exceed volatile organic material ("VOM") emission levels of five years ago.

Horween, located in Chicago, Illinois, produces specialty leathers for a small niche of customers that demand quality. It is extremely important that Horween be able to produce

additional "specialty-type" leathers to support its business. Between 1995 and 2000, Horween has experienced a marked reduction of footage shipped: 6,950,128 to 4,780,291, respectively. See Attachment ("Attach.") 1. To remain a viable business, Horween must constantly change its products to meet the demands of its customers. As part of the market-driven changes and in order to continue to be a viable entity, Horween needs to be able to finish a larger variety of specialty-type leathers including cementable pull up, leathers designed for hand-sewn shoes, and other performance leathers that were not considered in the existing Reasonably Available Control Technology ("RACT") rule or the amendment to the RACT rule that included the definition of specialty leather and established a separate RACT rule for such leather.

The rapid decline in the U.S. leather manufacturing industry has created extreme economic uncertainty for all tanneries in the U.S. Since 1994, over one-half of the side leather production in this country has been lost. See Attach. 2 and 3. For example, in 1999 only 120 million out of 1,767 billion shoes consumed were domestically produced. As a result of the increasing offshore leather production and the relocation of leather customers overseas, the U.S. domestic side leather industry has been in the process of rapid consolidation. Since 1998, at least eight major leather producers have closed or are closing. The leather producers that have already closed include A.L. Gebhardt, Pfister & Vogel, Whitehall Tanning, Salz Leathers, and Lackawanna Tanning. Additionally, this year, Midwest Tanning announced plans to move to China and Blackhawk Tanning will be closing. Finally, Irving Tanning, a direct competitor of Horween, just filed for Chapter 11 bankruptcy this summer, Paul Flagg Tanning is for sale and Prime Tanning began ceasing domestic operations at the end of the 2001. See Attach. 4.

The inherent production requirements of leathers that use higher solvent-based finishes were the subject of Illinois' original adoption of amendments to the generally applicable RACT leather coating rule. See 35 Ill. Adm. Code §§ 218.926 and 211.6170; Board Order, PCB R93-14, January 6, 1994. Horween worked extensively with the Illinois Environmental Protection Agency ("IEPA" or "Agency") in that procedure and testified before the Board. The Board, after thoroughly evaluating the required production needs of specialty leathers with a high grease, wax

and oil content, adopted a special subcategory for this "specialty leather." See 35 Ill. Adm. Code §§ 218.926 and 211.6170. The Illinois rule allows emission of VOM in the amount of 38 pounds ("lbs.") per 1,000 square feet and further provides an exemption for the stains used on leather. 35 Ill. Adm. Code § 218.926. Furthermore, the rule specifically defines "specialty leather." 35 Ill. Adm. Code § 211.6170. This particular rule was approved by the U.S. Environmental Protection Agency ("USEPA") and included in the Illinois State Implementation Plan ("SIP"). 59 Fed. Reg. 46567 (Oct. 11, 1994). During that rulemaking process, the IEPA and ultimately the Board agreed that further solvent reductions and add-on control technology were not feasible and would create an undue burden upon specialty leather manufacturers. Thus, the Board enacted the Specialty Leather Rule to provide relief to these manufacturers from the generally applicable RACT coating rules.

At the time the IEPA was developing the adjusted RACT standards, Horween provided IEPA with a substantial amount of information to justify the modified standards. See Attach. 5. Part of the information included the disclosure that products being developed by Horween may change based on future customer demands and fashion changes. Horween produces leathers to meet the demand of its customers who primarily produce shoes. Fashion and the needs of the shoe production process drive this demand.

To continue to stay in business to provide high quality leather products and compete with international producers of leather products who are allowed to use a variety of finishes not subject to the same environmental constraints as those imposed in the United States, or even more specifically, in Illinois, Horween has recently explored the development of new leather products. To date, Horween has identified two types of what it believes to be "specialty leathers" that would allow Horween to replace a portion of the business it has lost. The first group includes a minor change to Horween's existing CHROMEXCEL® specialty leather, and the second group, performance leathers, includes a leather previously made by a closed tannery. This leather, referred to by Horween as "GENTRY" can be hand sewn and ironed. See Attach. 6, 7 and 8.

Due to changes in demand, Horween now produces some CHROMEXCEL® Leathers with less grease, wax and oils being added to the mills during production; however, through combining hot stuffing with roller coating, more than 25 percent ("%") grease, wax and oils are added on a dry weight basis. Recently, shoe manufacturers have been requesting that Horween produce specialty leathers with less of a waxy feel than the traditional CHROMEXCEL® Leathers. These new leathers are intended to satisfy consumer demand for dressier looks that are capable of being used in a different type of shoe making system involving cementing soles to the shoes, rather than sewing them. Unfortunately, the traditional CHROMEXCEL® Leathers are not capable of being cemented because the high grease, wax and oils content prevents any cements from forming a permanent bond. Thus, Horween cannot produce these new leathers in compliance with the current definition of CHROMEXCEL® Leather because the formula for producing this leather involves the use of less than 25% grease, wax and oils on a dry weight basis. Furthermore, based on Horween's experience, there would still be enough grease, wax and oils present in these leathers to trigger the same technical problems which gave rise to the original need for the Specialty Leather Exemption related to the inability of water-based dyes, finishes or other low solvent coatings to penetrate or adhere to the leathers during the finishing process. These types of problems begin to appear at grease, wax and oils content of 12%. Therefore, the newly proposed leathers with between 12% and 25% grease, wax and oils content cannot be finished with coatings that comply with the generally applicable 3.5 lbs. per gallon RACT coating regulation and cannot satisfy the definition of specialty leather.

The second group of proposed leathers, including one leather that was produced in a tannery now closed in Wisconsin, was designed for specialty performance for hand-sewn shoes and an extremely glossy, dressy look and fine, smooth finish. From the tanning side, changes must be made so this type of specialty leather will withstand soaking and still be pliable enough that the leather and the finish shrink together at a consistent rate, yielding a smooth surface appearance. From the shoemaking side, the top finish of the leather must be able to withstand ironing with high temperatures to give a uniform, smooth appearance. The surface must also be

compatible with current shoe finishes used to stain and antique the shoes to give the desired appearance. Water-based finishes that comply with the 3.5 lbs. per gallon RACT coating regulation are not able to do this.

While developing these new products, Horween evaluated the existing RACT rules to review potential impacts on future environmental compliance should these new products be produced. Consequently, Horween realized that, as written, Horween would not be able to put these new leathers into production and continue to comply with the existing Illinois RACT rules. However, even though the production of the newly proposed products cannot meet the current RACT rules, there is a negligible environmental impact from producing these new products. The production of the new specialty leathers at this facility will hopefully replace production that has been lost since 1995 and would not exceed the VOM emissions from 1995 with an additional 20 ton per year ("tpy") cap on these new specialty leathers. Horween would not exceed current emission limits already in place in the facility's Title V permit and ERMS baseline. Thus, any environmental impact from production of the new products would be negligible.

Prior and subsequent to the amended RACT rule, Horween tested several water-based leather finishes and continues to be unsuccessful in replacing solvent-based materials where finish performance is an issue. While there are new stains that may be extended with water prior to application, when the VOM content of these finishes is calculated, the water content must be subtracted when calculating VOM content. See Attach. 9. Therefore, the substitution of these materials has not resulted in compliance with the generally applicable 3.5 lbs. of VOM per gallon RACT coating regulation. However, Horween replaced solvent-based materials with water-based materials for all of the leathers that do not require special finish performance or a dressier polished look. In addition, Horween continuously adjusts formulas to reduce VOM and HAP emissions, while maintaining quality specialty leathers that are acceptable to customer's demands.

Based on the above background and the original justification for amending the Illinois

RACT requirements to recognize "specialty leather" manufacturers, Horween is proposing the

Board adopt the same RACT rule the USEPA recently approved as part of the State of Maine's

SIP of 14.0 lbs. VOC (VOM) per 1,000 square feet for non-waterproof leather, and 24.0 lbs. VOC (VOM) per 1,000 square feet for waterproof leather. See Attach.10 and 11.

The two proposed groups of specialty leather will have both waterproof and non-waterproof leathers depending upon the customer's needs. Generally speaking, the difference between our waterproof and non-waterproof leathers is the stuffing, oiling, and retannage; not the top finishing coats. The top finishing coats affect the final appearance as far as a natural and casual, or a dressier more polished end-product. The components of the finishes are also greatly affected by the amount of grease, wax and oils used with the leather.

In addition to the limitations of the Maine RACT rule, Horween proposes an emissions cap of 20 tpy of VOM for the emissions from the production of the above-described two new leather product groups of "specialty leathers" that would satisfy the parameters of the proposed RACT rule. Furthermore, the remaining leather production would remain subject to the existing regulatory requirements. These changes will allow Horween to continue to respond to constant changes in the "specialty leather" market while continuing to operate its facility in compliance with environmental standards. The specific information required in a petition for a site-specific rulemaking pursuant to 35 Ill. Adm. Code §§102.202 and 102.210 is set forth below.

Section 102.202 - Petition Content Requirements

Section 102.202(a): The Language of the Proposed Rules

The current coating regulations applicable to leather manufacturers can found in 35 Ill. Adm. Code 211.6170 and 218.926. Horween has been able to comply with these regulatory provisions by carefully monitoring process materials in accordance the Illinois Rules and Horween's Title V permit requirements. However, as explained throughout this petition, due to market demand changes, inherent product manufacturing constraints, and the ability to stay well within its Title V emission limits, Horween would like to manufacture new products without raising any environmental concerns. Accordingly, Horween requests that the Board make the following changes to Section 218.926:

Except as provided in Section 218.929, eEvery owner or operator of miscellaneous fabricated product manufacturing process emission unit subject to this Subpart shall comply with the requirements of subsection (a), (b) or (c) of this Section:

Furthermore, Horween requests that the Board add Section 218.929 as follows:

Section 218.929 Cementable and Dress or Performance Shoe Leather

a) This rule applies to a leather manufacturing facility located at 2015 North Elston

Avenue, Chicago, Illinois 60614. In addition to leathers produced in accordance
with any other rule, this facility shall be allowed to produce the following types of
leather:

1) Cementable Shoe Leather

- (a) A select grade of chrome tanned, bark/polymer retanned leather;
- (b) Hot stuffed, fat liquored or wet stuffed to over 12% but less than 25% by weight grease, wax and oils measured by dry weight balance calculation, by direct contact with such materials in liquefied form at elevated temperature; and
- (c) Finished with coating materials which adhere to the leather surface to provide color and a rich visual luster while allowing a surface that feels oily.

2) Dress or Performance Shoe Leather

- (a) A select grade of chrome tanned, bark/polymer retanned leather;
- (b) Finished with coating materials containing water emulsified materials using water miscible solvent materials to protect the leather and pigmented coating; and
- (c) Used primarily in the manufacture of sewn shoes where the leather must be capable of soaking and/or ironing of the finished shoe to smooth wrinkles; or leathers with a fine, dressy finish that cannot meet the 3.5 lbs. per gallon RACT coating regulation.
- 3) Does not meet the definition of specialty leather; and
- 4) Cannot meet the control requirements in Section 218.926.

- b) The production of leather allowed under this provision is subject to the following limitations:
 - 1) The total VOM emissions shall not exceed 24 lbs. VOM per 1,000 square feet for waterproof leather based on a 12-month rolling average;
 - 2) The total VOM emissions shall not exceed 14 lbs. VOM per 1,000 square feet for non-waterproof leather based on a 12-month rolling average; and
 - 3) The total annual VOM emissions shall not exceed 20 tons.

Section 102.202(b): Statement of the Reasons Supporting the Proposal¹

As stated throughout this petition, there are three main reasons that justify a site-specific rule in this circumstance. First, the rapid changes and deterioration of the U.S. leather industry requires the limited number of remaining U.S. specialty leather manufacturers to create new products to compete internationally or join the other recently failed leather manufacturers in extinction. Secondly, due to the technical and production limitations inherent in making specialty leather products, Horween cannot produce the newly proposed products while complying with the existing RACT rules.² Finally, Horween's production of the newly proposed products will not result in a negative environmental impact when compared to prior operation at the facility and the continuing requirement to comply with existing emission limits in the facility's Title V permit.

The negative effects upon Horween of maintaining the status quo are readily apparent. Since 1995, because of drastic market changes to the leather manufacturing industry, Horween's use of VOM has gone down along with its reduction of leather production and employees. More specifically, in 1995, the facility used finishes containing 62.764 tons of VOM and shipped 6,950,128 square feet of product. In 2000, the usage dropped to 40.980 tons of VOM and Horween's corresponding shipment of product dropped to 4,780,291 square feet for a total of over a 31% reduction in both areas. See Attach. 1. Consequently, Horween was forced to reduce its workforce from 201 employees in 1995 to a current low of 151, almost a 25 percent

Also see the analysis for Section 102.210(c) which compliments this section.

² The requested limitations are consistent with recently-approved USEPA RACT regulations adopted by Maine.

loss of employment. The cost of continued compliance with the current regulations applicable to Horween is the continued exponential decrease in annual market share of the leather producers' market, a continued decrease in production, and Horween's eventual facility closure similar to the previously mentioned leather producers that have closed or are in the process of closing.

During the Board's decision to recognize the unique emissions of specialty leather manufacturers, it determined that add-on controls were technically infeasible. Furthermore, the Board concluded that the ability of specialty leather manufacturers to reformulate the solvents used in the manufacturing process was technically impossible based on the specific products manufactured. Finally, the Board determined that requiring add-on controls was economically unreasonable based on the few existing specialty leather manufacturing operations and the limited production at those facilities. Therefore, the true cost of compliance and compliance alternatives is eventual extinction of specialty leather manufacturing in Illinois and a continued decimation of U.S. leather manufacturing.

Furthermore, although the Horween facility is located in an area that has been designated as a nonattainment area for ozone, the emissions from the new leather products that Horween would like to produce are so small that the impact on ambient air quality could not be measured at the boundaries of the site. Moreover, the emissions from the facility resulting from the rule change would not exceed the permitted limits in the facility's existing Title V permit.

The requested rule change would specifically apply to the product development for cementable pull up, performance leathers and hand-sewn leathers which are currently estimated to be from 500 sides per week to a maximum of 2,000 sides per week depending on the limiting factors. See Attach. 1, 6, 7, and 8. At the maximum production rate of the new products, there would be no physical changes necessary to be made to the facility. Given the uncertainties in the planning process, the fact that the leathers have yet to be produced, and the need to develop other new products, Horween is proposing an emissions cap of 20 tpy VOM for the total production of these new leathers. Furthermore, Horween is recommending the additional limitations that the total VOM emissions shall not exceed 24 lbs. VOM per 1,000 square feet for waterproof leather,

and 14 lbs. VOM per 1,000 square feet for non-waterproof leather, based on a 12 month rolling average. These self-imposed constraints on emissions can easily be met and verified due to the limited size of the facility along with the specialized finishing equipment and processes used for finishing this type of specialty leather. When comparing the increases in VOM and HAP emissions to the recent VOM and HAP decreases due to Horween's market share loss, allowing a rule change so that Horween can produce the new products described above has a negligible impact on compliance with existing emission limits and standards. However, even without the recent decreases in VOM and HAP, the emissions related to the change still do not even come close to the emission caps of 99.12 tpy of VOM and HAP in Horween's Title V permit and Horween's allotment of 281 ATUs per season under the ERMS program.³

Finally, most of the finishing chemical HAPS are ethylene glycol n-butyl ether (2-butoxyethanol) ("EGBE") that should be delisted from the HAP list shortly. The Chemical Manufacturer's Association (CMA) petitioned to have EGBE delisted in August 1999. The USEPA scientific study has been concluded, with the recommendation that EGBE should be delisted. EGBE accounted for all but 2.5 tons of Horween's HAPS in 2000. See Attach. 12.

Section 102.202(c): Synopsis of All Testimony to be Presented at Hearing

At hearing, Horween will be prepared to present testimony on the technical, economic and environmental reasons why the Board should grant this petition for a site-specific rule. The general nature of the testimony to be provided has been described in this petition in the Introduction and Section 102.202(b).

Two witnesses who are prepared to testify at a hearing have provided affidavits attesting to the truth, accuracy and completeness of the information provided in this petition. The witnesses names, their relationship to Horween and their affidavits can be found in Attachment 13.

³ The Title V permit source-wide emissions limitation for HAP are included within the VOM emissions limitation.

Section 102.202(d): Copies of Any Material to be incorporated by reference within the proposed rule pursuant to Section 7-75 of the IAPA [5 ILCS 100/5-75]

At this time, the Petitioner does not request that any information or material be incorporated by reference within the proposed rule.

Section 102.202(e): Proof of Service upon All Persons Required to be Served Pursuant to Section 102.422

Attached to this petition is proof of service that the Petitioner satisfied the requirements of 35 Ill. Adm. Code 102.208 when filing this petition. Should the hearing officer or the Board create or modify a notice list during this regulatory proceeding pursuant to 35 Ill. Adm. Code 102.422, the Petitioner will add those persons to the notice list and serve those persons as required.

Section 102.202(f): Petition Signed by at least 200 Persons

Because the enactment of the proposed rule will not result in any negative environmental impact when compared to historical production of specialty leathers at this facility and the existing emission limitations in the facility's Title V permit, the Petitioner believes that the Board should waive the requirement to submit a petition signed by at least 200 persons in accordance with 35 Ill. Adm. Code 102.202(f). See Attach. 1. Horween also believes that a waiver of this requirement is further warranted based on the recent acceptance by USEPA and Maine of the same RACT rule as the rule outlined in this petition.

Section 102.202(g): Agency Proposal of Federally Required Rule

This subsection does not apply because the Petitioner is not the Agency.

Section 102.202(h): Verification that the Most Recent Rule is to be Amended

This statement certifies that the proposed changes to 35 Ill. Adm. Code 211.6170 and 218.926 outlined in this petition amend the most recent versions of the rules obtained from the Board's Web site.

Section 102.202(i): [For State Agencies] An Electronic Version of The Language of the Proposed Rules

This subsection does not apply because the Petitioner is not a State agency.

Section 102.202(j): Justification for Inapplicability of Sections in 102.202

Please see descriptions under each subsection above for justifications of inapplicability.

Section 102.210 - Petition Content Requirements

Section 102.210(a): Language of the Proposed Site-Specific Rule

For the language of the proposed site-specific rule, see the analysis for Section 102.202(a) above.

Section 102.210(b): Reasons for the Rule Change

For a description of the reasons for the rule change, see the analysis for Section 102.202(b) above. In addition to the detailed descriptions above that support this petition, Horween has also included seventeen (17) attachments that justify the site-specific rule based on technical, economic and environmental reasons.

Section 102.210(c): Description of the Site and the Area Affected by the Proposed Change⁴

Horween, a 96-year-old business, is located in the Elston Corridor Planned Manufacturing District No. 2 at 2015 North Elston Avenue, Chicago, Cook County, Illinois. It is zoned for Heavy Manufacturing and surrounded by manufacturing and commercial businesses. See Attach. 15. The facility currently employees 151 people and primarily processes and finishes specialty leather for a small niche of high-end customers that demand quality. Cattle hides received are produced into both specialty leather and standard leather. All cattle hides are washed, limed, de-haired, and chrome tanned to remove naturally occurring oils which must be

⁴ Also see the analysis for Section 102.202(b) which compliments this section.

replaced later in the process. Oils are replaced by hot stuffing, fat liquoring or wet stuffing. Leather is then dried and may undergo buffing, staking and splitting to prepare it for finishing. In the cattle leather finishing process, various types of leather coatings or finishes are applied depending upon the type of leather being produced. Coating operations include spraying, machine brushing, roll coating, or hand brushing of coatings onto leather. Drying techniques involve gas-fired low heat dryers, steam low heat dryers, vacuum drying, and hanging and toggling in drying rooms.

The facility currently has a Title V Clean Air Act Permit Program (CAAPP) Permit issued by IEPA on December 6, 1999, because it is considered a major source of VOM and Hazardous Air Pollutant ("HAP") emissions. The facility houses 22 significant emission sources, excluding emissions from miscellaneous/cleanup, that emit VOM, SO², PM and NOX. The permitted emission limits, in tons per year, for these pollutants are 99.12, 3.58, 10.62 and 13.63, respectively. Seven of the sources have particulate matter pollution control equipment including two built-in water curtains for the spray paint booths, one baghouse for four buffer units and a whirl-wet dust collector for an additional buffer. We also utilize electric eyes on our automatic spray lines to eliminate the overspraying of finishes. Work Practices, Compliance Procedures and Recordkeeping Requirements are all outlined in Section 5.0 Overall Source Conditions and Section 9.0 Standard Permit Conditions of Horween's Title V CAAPP Permit. See Attach. 16.

There are no treatment or control options that could avoid the Petitioner's request for this rule change. First, no feasible add-on equipment currently exists to control VOM emissions from the leather finishing process. Additionally, as explained above, even though Horween has invested heavily in the research and development of utilizing different replacement finishes and low VOM stain coats, no suitable substitute material has been satisfactorily developed to replace the use of solvent-based coating on these types of specialty leathers. Finally, material substitution or process modification is not a viable alternative for tanneries producing this type of specialty leather.

However, even though the use of the newly proposed specialty leather coating cannot meet the current rule, the environmental impact of the proposed change to the regulations allowing Horween to make these new specialty leather products is negligible. More specifically, Horween is asking for a 20 tpy limitation to ensure it does not exceed the Finishing VOM usage from 1995. See Attach. 5. Constraints on emissions will also stem from the limited size of the facility along with the specialized finishing equipment and processes used for finishing this type of specialty leather. When comparing the increases in VOM and HAP emissions to the recent VOM and HAP decreases due to Horween's market share loss, the proposed standard has no impact on compliance with existing emission limits and standards. However, even without recent decreases in VOM and HAP, the emissions related to the change still do not even come close to the emission caps in Horween's Title V permit of 99.12 tpy of VOM and HAP in Horween's Title V CAAPP Permit.⁵

Section 102.210(d): Demonstration that the Board may Grant the Proposed Relief

The Board can grant the proposed relief consistent with federal law governing the subject of the proposal. In the 1990 amendments to the Clean Air Act, Congress included provisions that required states to submit SIPs for moderate, serious, severe, and extreme ozone nonattainment areas that imposed RACT on all major sources of volatile organic compounds. See 42 U.S.C. § 7511a. Chicago has been determined to be located in a severe ozone nonattainment area.

40 C.F.R. § 81.314. Accordingly, Illinois submitted a SIP including RACT regulations for leather coating. As originally proposed by Illinois, Horween could not have met the RACT standards for leather coating. However, after providing a substantial amount of information about its unique process of tanning leather and the air pollutant emissions related to the process, IEPA agreed with Horween's position and reflected its agreement by proposing a specialty leather emissions rule that allowed VOM emissions in the amount of 38 lbs. per 1,000 square feet and created the

⁵ The Title V permit source-wide emissions limitation for HAP are included within the VOM emissions limitation.

existing definition of "specialty leather." The amended RACT rule was approved by the Board and USEPA as part of its SIP under the Clean Air Act. 59 Fed. Reg. 46567 (Oct. 11, 1994).

With regard to Horween's newly proposed products, the emission factors relating to producing these products are substantially different from the factors relied upon by the Board in adopting the general regulation. As Illinois affirmed when originally amending the RACT rule for specialty leather manufacturers, the unique treatment of specialty leather manufacturers is necessary because of their limited number and minimal impact on the degradation of air quality. Although the Horween facility is located in the Chicago metropolitan area, there will be a small impact, if any, on the facility's emissions if the requested rule change is granted. Moreover, the impact of emissions will continue to be limited by the caps on Horween's VOM emissions proposed in this petition and the limits on its VOM and HAP emissions currently in its Title V CAAPP Permit. Thus, Horween's introduction of new specialty leather products would not cause or contribute to any violation of the national ambient air quality standards. Additionally, as set forth above, and perhaps most critical, no viable alternative currently exists to create the products for which Horween is seeking this relief. Accordingly, granting an amendment to the existing Illinois RACT rules to allow Horween to produce these new leather products is justified.

Because this petition affects the RACT rules established for the Chicago Metropolitan area and is not a proposal for an equivalent alternative control plan as identified in 35 Ill. Adm. Code 218.926(c), the IEPA will have to request a SIP revision to add this rule to Part 218. However, for the reasons stated above, IEPA's SIP revision request will likely be non-controversial because of the negligible environmental impact of granting this proposed site-specific rule and the recent acceptance by USEPA of the same rule as RACT in Maine. See 65 Fed. Reg. 20749 (Apr. 18, 2000). See Attach. 10 and 11.

With regard to other related federal laws, USEPA has published a proposed NESHAP standard for Leather Finishing Operations that may affect Horween's future HAP emissions, if approved. See 65 Fed. Reg. 58702 (Oct. 2, 2000). During the notice and comment period, Horween timely submitted comments to USEPA to explain its unique process of manufacturing

specialty leather products and requested USEPA recognize Horween's unique operations in any final NESHAP standard. See Attach. 17. On May 14, 2001, the USEPA announced that the NESHAP standard was in its final stages and placed the NESHAP standard on the list of rules to be promulgated within one year. See 66 Fed. Reg. 26119 (May 14, 2001). However, to date, the NESHAP rule has not yet been issued; thus, Horween cannot comment on how the USEPA will respond to Horween's comments, change the proposed rule to recognize Horween's unique operations, or affect Horween's operations.

Section 102.210(e): [State Only Requirement] Electronic Version of the Proposal

This subsection does not apply because the Petitioner is not a State agency.

Section 102.210(f): Justification for Inapplicability of Sections in 102.210

Please see descriptions under each subsection above.

WHEREFORE, Horween requests the Board grant a site-specific rule from compliance with 35 Ill. Adm. Code 211.6170 and 218.926 and add a new rule 218.929 so Horween can continue to produce its existing specialty leathers and to develop new products in compliance with environmental law.

Respectfully submitted,

Arnold Horween, Jr.

President

HORWEEN LEATHER COMPANY

Attachments

CERTIFICATE OF SERVICE

The undersigned certifies that a copy of the foregoing Notice of Filing and Petition for Site-Specific Rulemaking was filed by hand delivery with the Clerk of the Illinois Pollution Control Board and served upon the parties to whom said Notice is directed by first class mail, postage prepaid, by depositing in the U.S. Mail at 321 North Clark Street,

Chicago, Illinois on Tuesday, February 19, 2002.

CH01/12208868.1

LIST OF ATTACHMENTS

1	YEARLY USAGE OF FINISHES CONTAINING VOM AND HAPS
2	US NON-RUBBER SHOE MARKET
3	US FOREIGN TRADE
4	NEWS OF THE MONTH, American Shoemaking, October/November 2001
5	PREVIOUSLY SUBMITTED TECHNICAL SUPPORT DOCUMENT
6	CEMENTABLE LEATHERS, FINISH A
7	ADDITIONAL PERFORMANCE LEATHERS SAMPLE, FINISH B
8	HAND SEWN LEATHERS, FINISH C
9	ADJUSTMENTS MADE TO DYE MIX
10	PRIME TANNING COMPANY, YORK COUNTY, BERWICK, MAINE, PART 70 AIR EMISSION LICENSE
11	FEDERAL REGISTER DOCUMENT, 40 CFR PART 52, APPROVAL AND PROMULGATION OF AIR QUALITY IMPLEMENTATION PLANS; MAINE; RACTOR VOC SOURCES
12	IMPACT OF DELISTING OF EGBE
13	AFFIDAVITS – ARNOLD HORWEEN, JR., JULIE M. CHRISTENSEN
14	NO ATTACHMENT
15	ELSTON CORRIDOR PLANNED MANUFACTURING DISTRICT NO. 2
16	TITLE V CAAPP PERMIT
17	COMMENTS REGARDING PROPOSED RULE, 40 CFR PART 63, NESHAPS FOR LEATHER FINISHING OPERATIONS

YEARLY USAGE OF FINISHES CONTAINING VOM AND HAPS

		TONS OF GLYCOL	TOTAL SIDES	LBS OF VOM	LBS OF GLYETH
YEAR	TONS OF VOM	ETHER HAPS	FOOTAGE SHIPPED	PER 1000 SQ FT	HAPS/1000 SQ FT
1995	62.764	20.199	6,950,128	18.06	5.81
1996	49.239	16.861	5,435,611	18.12	6.20
1997	48.605	13.089	6,518,582	14.91	4.02
1998	42.773	12.598	5,030,894	17.00	5.01
1999	40.553	12.422	5,034,771	16.11	4.93
2000	40.980	13.665	4,780,291	17.15	5.72

	TONS VOM	TONS HAP	TONS VOM
	500 SIDES/WK/YR	500 SIDES/WK/YR	MAY-SEP
Cementable Finish A	4.528	1.655	2.264
Performance Finish B	2.411	0.913	1.206
Hand Sewn Finish C	2.741	2.126	1.371
TOTALS	14.374	9.534	4.840
	TONS VOM	TONS HAP	TONS VOM
	MAX* SIDES/WK/YR	MAX* SIDES/WK/YR	MAY-SEP
Cementable Finish A	45.279	16.545	22.640
Performance Finish B	9.644	3.652	4.822
Hand Sewn Finish C	5.475	4.249	2.738
TOTALS	84.844	54.645	30.199
20 TON LIMIT**	20.000	12.881	7.119
	TONS VOM	TONS HAPS	ERMS ATU'S
2000	40.980	13.665	192
NEW PRODUCTION**	20.000	12.881	72
TOTALS	60.980	26.546	264

US NON-RUBBER SHOE MARKET

	Dress & Work	Men's	Men's	Youth's		infants'	Total	Production W/Leather	Production W/Leather
•	Total	Dress	Work	& Boys'	Children's	& Babies'	Production	Uppers Only	Uppers & Soles
1990	44,621	31,752	12,869	1,205	5,611	11,137	184,568	88,944	27,287
1991	39,803	27,340	12,463	807	5,263	11,162	167,386	85,865	26,693
1992	41,185	28,959	12,226	801	4,332	9,406	168,451	79,451	24,275
1993	46,404	31,956	13,720	1,203	3,939	8,302	171,733	93,228	26,802
1994	41,313	27,641	13,672	1,528	4,084	7,629	163,000	99,845	26,194
1995	41,051	26,181	14,870	1,289	3,871	6,722	147,559	83,801	27,072
1996	36,646	21,795	14,851	553	2,737	5,559	127,315	77,562	25,962
1997	36,694	20,256	16,478	403	1,612	5,481	124,444	66,296	21,767
1998	*34,845	*22,644	*12,201	*223	*973	*4,213	*108,536	*53,582	*18.622
1999	*27,273	*16,982	*10.291	• ′	*963	*1.788	*78,870	*34,680	*10.406
2000	Data Not A	vailable at T	ime of Publication	n.		.,		,	

Ing LUCUL	JCTION NON-RU	IBBER SHOE MA	RKET		
Unit 1,00	00 Pairs				
	101 t.	*** 1			045
	Women's	Misses'	Athletic	Slippers	Other
1989	68,987	3,865	15,267	56,513	3,163
1990	63,082	1,985	9,532	44,718	2,677
1991	55,455	1,371	8,113	42,963	2,449
1992	57,185	1,736	8,157	43,735	1,914
1993	56,632	1,406	*5,866	39,190	1,875
1994	49,849	836	6,146	43,265	2,754
1995	49,401	1,284	5,468	47,554	2,444
1996	49,889	686	*3,405	40,696	*1,411
1997	43,364	796	*2,744	43,037	*1,094
1998	**22,478	**77	**3,737	**40,189	**1,803
1999	**13,630	**	**313	**32,235	**2,573
* Excludes	disposables				
** Revised	•				
US NON-RI	UBBER SHOE M	ARKET			
Unit 1,00			•		
					_
		Total US		US Population	Pairs
	US	Total US Imports		US Population (July 1)	Pairs Per
	US Production		Total	(July 1)	
1990		Imports	Total 1,082,100	•	Per
1990 1991	Production	Imports (Exc. Disposables)		(July 1) (Unit - 1,000,000)	Per Capita
	Production 184,568	Imports (Exc. Disposables) 897,532	1,082,100 1,104,542	(July 1) (Unit - 1,000,000) 249.9	Per Capita 4.33
1991	Production 184,568 167,386	Imports (Exc. Disposables) 897,532 937,156	1,082,100 1,104,542 1,142,675	(July 1) (Unit - 1,000,000) 249.9 252.6	Per Capita 4.33 4.37
1991 1992	Production 184,568 167,386 168,451 171,733	Imports (Exc. Disposables) 897,532 937,156 974,224 1,065,267	1,082,100 1,104,542 1,142,675 1,229,024	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4	Per Capita 4.33 4.37 4.47
1991 1992 1993	Production 184,568 167,386 168,451 171,733 163,000	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2	Per Capita 4.33 4.37 4.47 4.76
1991 1992 1993 1994 1995	Production 184,568 167,386 168,451 171,733 163,000 147,550	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268 1,079,450	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980 1,238,534	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2 260.6 262.8	Per Capita 4.33 4.37 4.47 4.76 4.83
1991 1992 1993 1994	Production 184,568 167,386 168,451 171,733 163,000 147,550 127,315	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268 1,079,450 1,098,064	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980 1,238,534 1,241,822	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2 260.6 262.8 265.3	Per Capita 4.33 4.37 4.47 4.76 4.83 4.71
1991 1992 1993 1994 1995 1996 1997	Production 184,568 167,386 168,451 171,733 163,000 147,550 127,315 124,444	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268 1,079,450 1,098,064 1,229,167	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980 1,238,534 1,241,822 1,337,611	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2 260.6 262.8 265.3 267.6	Per Capita 4.33 4.37 4.47 4.76 4.83 4.71 4.68
1991 1992 1993 1994 1995 1996 1997	Production 184,568 167,386 168,451 171,733 163,000 147,550 127,315 124,444 *108,536	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268 1,079,450 1,098,064 1,229,167 1,229,831	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980 1,238,534 1,241,822 1,337,611 *1,338,367	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2 260.6 262.8 265.3 267.6 270.5	Per Capita 4.33 4.37 4.47 4.76 4.83 4.71 4.68 *4.99
1991 1992 1993 1994 1995 1996 1997 1998 1999	Production 184,568 167,386 168,451 171,733 163,000 147,550 127,315 124,444 *108,536 *78,870	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268 1,079,450 1,098,064 1,229,167 1,229,831 1,305,262	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980 1,238,534 1,241,822 1,337,611 *1,338,367 *1,384,132	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2 260.6 262.8 265.3 267.6 270.5 273.1	Per Capita 4.33 4.37 4.47 4.76 4.83 4.71 4.68 *4.99 *4.95 5
1991 1992 1993 1994 1995 1996 1997	Production 184,568 167,386 168,451 171,733 163,000 147,550 127,315 124,444 *108,536	Imports (Exc. Disposables) 897;532 937,156 974,224 1,065,267 1,101,268 1,079,450 1,098,064 1,229,167 1,229,831	1,082,100 1,104,542 1,142,675 1,229,024 1,257,980 1,238,534 1,241,822 1,337,611 *1,338,367	(July 1) (Unit - 1,000,000) 249.9 252.6 255.4 258.2 260.6 262.8 265.3 267.6 270.5	Per Capita 4.33 4.37 4.47 4.76 4.83 4.71 4.68 *4.99

 $\it U.S.$ Leather Industry Statistics , Produced by Leather Industries of America data taken from World Footwear Markets 2001

US FOREIGN TRADE

TOTAL FOOTWEAR Unit 1,000 Pairs	IMPORTS				
Country	2000	1999	1998	1997	1996
Brazil	96,187	83,777	82,385	89,686	91,601
Canada	1,410	1,587	1,485	1,804	2,090
Dominican Rep.	5,910	6,436	8,044	9,132	4,586
Mexico	11,917	13,262	19,410	23,582	16,732
France	902	1,212			823
Germany	3,377	3,446		2,868	- 2,356
italy	50,848	46,484	47,711	52,568	49,528
Portugal	3,760	3,925	3,359	3,265	3,215
Spain	17,500	17,895	22,247	242,056	21,764
United Kingdom	6,175	6,930	6,885	6,623	4,533
China	1,086,364	984,847	895,142	842,110	750,944
Hong Kong	8,750	7,165	6,655	10,222	7,946
India	7,084	6,549	5,880	7,566	7,254
Indonesia	59,385	63,340	59,226	67,668	67,129
Korea	5,803	6,580	9,277	8,738	10,066
Philippines	2,072	1,976	6,188	8,027	8,397
Sri Lanka	1,105	1,361	1,624	1,609	1,738
Taiwan	11,170	12,562	13,679	19,127	17,845
Thailand	18,570	18,759	18,642	17,788	17,620
Vietnam	3,810	3,274	3,444	2,934	808
Balance		•			·
of World	12,151	13,395	14,119	12,659	11,888
TOTAL	1,414,250	1,305,262	1,229,831	1,213,167	1,098,863

	HIDES & SKINS LEATHER					SHOES &		
•					LEATHER PROUCTS*		NET	
	Imports	Exports	Imports	Exports	Imports	Exports	DEFICIT	
1990	93	1,607	683	751	12,451	527	10,342	
1991	109	1,270	571	680	12,335	649	10,416	
1992	124	1,250	631	705	13,002	733	11,069	
1993	120	1,189	736	764	13,857	837	11,923	
1994	126	1,392	960	812	14,791	839	12,834	
1995	140	1,237	1,089	870	15,298	884	13,536	
1996	131	1,235	1,139	951	15,858	923	14,936	
1997	126	1,491	1,376	1,146	17,288	942	15,211	
1998	109	1,113	1,571	1,289	17,322	849	15,751	
1999	98	1,016	1,635	1,137	17,514	874	16,220	
2000	105	1,476	1,993	1,126	19,446	922	18,020	

U.S. Leather Industry Statistics , Produced by Leather Industries of America data taken from World Footwear Markets 2001

NEWS OF THE MONTH

Prime Tanning to Close Plants, Release 550 Workers

Ken Purdy, president of the Prime Tanning Co. of Berwick, ME, has announced that Prime will be closing its plants in Berwick, ME, and Rochester, NH, by the end of the year. The closing will mean that 550 workers will be laid off.

In making the announcement, Purdy said that the company will sell its Rochester, NH, facility and convert its Berwick plant into a production development unit employing about 50 workers.

Purdy, who has been in the tanning business for some 30 years, said that the closing was "the most difficult and saddest day I've experienced." He cited the continuing trend of U.S. shoe manufacturing companies moving their production off shore for cheaper labor costs. This, he explained, made it impossible for Prime to maintain profitable production levels. He noted that 96% of the shoe sales in this country are now imports.

Purdy also noted that Prime held out longer than most other tanneries, pointing out that there is virtually no leather industry left in this country.

In June of this year Prime laid off 70 workers who had been employed at the company for four months or less. These workers had been hired in anticipation of a sales increase that never materialized.

As of October 1 the company will stop taking orders and phase out production over the next three months. The company expects to close its Berwick plant by November 2, Purdy said, with the Rochester plant closing by December 1.

When the Berwick facility is converted to a product development center, will also house sales, marketing, customer service, administration and corporate offices.

The closing of the Maine and New Hampshire facilities will not affect the wet blue operation in St. Joseph, MO. That facility employs some 300 workers. No leather is finished at that plant. The production of wet blues will be sent to Prime's joint ventures in China and Mexico, or to other Asia tanneries.

Prime Tanning is a family-owned busi-

ness that began tanning leather in Massachusetts more than 90 years ago, and moved to its Maine site in the 1930s. It was the last of three major tanneries in the area.

James McMahon, town manager of Berwick, said he was "thinking about how sad it is that after 70 years that they are stopping production here in Maine."

Charles Myers, president of Leather Industries of America, said of the closing that "the tanning industry in the United States is gone, If it's labor intensive, it's not going to happen here in America."

Salz Tannery to Close After 145 Years

Salz Leathers of Santa Cruz, CA, is closing, it was announced in a letter to customers signed by Geoff Eisenberg, CEO of the company.

According to Fischberg, the company will wind down its business over the next two or three months and as the various stages of production end, workers will be laid off. The company presently employs 111 workers. Many of the workers had been with the tannery for 30 years.

During its 145 years of existence, the company has survived fires, floods and earthquakes, but it could not survive the competition from China, said Norman Lezin, chairman of the company. Over the past 10 years, he said, the company has lost over \$10 million as the industry has moved to China where labor is cheaper and environmental laws are less stringent. The average hourly wage at the plant was \$17, compared to wages in China of \$1 per hour.

Lezin, who has been associated with Salz for 5.3 years, and his sons Jeremy and Matt had put off closing the company for some time. He said that he should have closed the facility 10 years ago when it became clear that globalization was changing how the industry was faring.

Eisenberg said that during this period of closing the company will not compromise its quality or service standards, and will honor all current orders and agreements. He noted that the company is financially healthy and will honor its obligations. Each employee will receive one month's pay plus benefits, and some retraining in order to find employment elsewhere.

Bass Picks Sullivan As Vice Chairman

G.H. Bass, a division of Philips-Van Heusen Corp., has announced the appointment of Diane Sullivan to the post of Vice Chairman. Sullivan, most recently president of Stride Rite brand, will divide her time between the South Portland, ME, offices of Bass and the New York offices of Philip-Van Heusen.

Sullivan, who left Stride Rite last May, replaces Michael Blitzer, chairman and CEO, who is returning to New Jersey where he lived prior to joining Bass as president.

Mark Weber, president and CEO of Philips-Van Heusen, said Sullivan has a wealth of experience not only in marketing and product development, but in administration as well. He noted that the Bass division is doing well, and that Sullivan's appointment comes at a time when Bass is looking to expand its product depth.

Sullivan joined Stride Rite as president of the brand in 1996 and led efforts to rebuild the children's business. She was promoted to group president, licensed brands, in 1998 when she helped launch the Tommy Hilfiger women's line. She became president and COO of Stride Rite in 1999.

Dexter Announces Factory Closing

The Dexter Shoe Co. announced on September 18 that it will be closing its last factory in Dexter, ME, by the end of the year. When the company closes, it will release nearly 500 workers.

Owned by Berkshire Hathaway since 1993 and operated by the Alfond family, the company produces men's and women's casuals and dress shoes, golf shoes, boating shoes and a line of hiking and walking shoes.

Incorporated in 1957 by the Harold Alfond family, the company has been struggling against the tide of imports for some time, and within a year has closed factories in Newport and Skowhegan, ME.

At one time the company employed as many as 3,000 workers.

Employees of Dexter are certified under the Federal Trade Adjustment Assistance Program for extended unemployment benefits and job retraining funds. Under the Trade Adjustment Assistance Program, employees of those companies affected by foreign competition are eligible for help.

SADESA new processing arrangement in China

In July 2001, Sadesa launched its first processing arrangement in China. The plant, Nanhai Mimosa Leathers Ltd., is located in Nanhai; 30 minutes drive from the center of Guangzhou. This arrange-

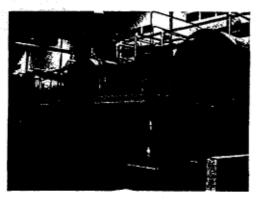


ment will complement the two plants already operating in Thailand. It is geared to supply the demands of Sadesa's China-based customers in a faster way, Focusing mainly in performance leathers, with the ability to produce lifestyle leathers as well.

As the first step towards the industrial expansion in Asia, Sadesa inaugurated in May 1999 its first plant outside South America. The plant is located in Ayutthaya, Thailand; a joint venture with Bangkok Rubber Group (BRG) owned 85% by Sadesa.

In January 2001, Sadesa increased its output in Thailand by utilizing the finishing capacity of Pan Asia Leather Co. Led., a tannery also part of BRG, located in Kabinburi. The finished leather produced at this plant is primarily focused to the performance footwear industry in Thailand, Vietnam, and Indonesia.

Sadesa is one of the largest leather manufacturers in the world, producing 17 million square feet of quality crust and finished leather



Sadesa's New Processing Plant in China.

per month in its ten industrial facilities and employing 2,750 people. The company operates a global sales network with offices and commercial alliances in 18 countries in the five continents. This structure provides the means to serve customers wherever required. Its worldwide raw material sourcing operates in the major hide markets supplying raw materials that best match customers' needs.

Two Ten Annual Meeting Nov. 8 in Boston

The Two Ten International Footwear Foundation will hold its Annual Dinner Meeting and Silent Auction on Thursday, November 8. Site of the event will be the Boston Park Plaza hotel.

This will be an opportunity for members to meet the new president of Two Ten, Peggy Kim Meill.

On Friday November 9, Two Ten will hold its annual Leadership Conference, which will also be held at the Park Plaza.

For further information and reservations for the Annual Meeting, contact Two Ten by telephone at 781-736-1500; by fax at 781-736-1554; or contact Mary Hehir by E-mail at mhehir@twoten.org.

Continued on Page 32

Congratulations American Shoemaking on your 100th anniversary

he familial ties of Fred Moynihan to his son, John, was the stimulus for the remarkable growth of American Shoemaking. John and his cohorts have taken this genesis to a well respected and honorable institution of our industry—We thank you for your excellence.

Your friends at Sheehan Sales



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HORWEEN LEATHER COMPANY

TECHNICAL SUPPORT DOCUMENT

1.0 INTRODUCTION

The Clean Air Act, as amended in 1990, mandates that states adopt rules to implement reasonable available control technology (RACT) for all major sources of volatile organic material (VOM) in nonattainment areas. The Chicago nonattainment area is classified as severe by National Ambient Air Quality Standards; therefore, all major sources with the potential to emit greater than twenty-five (25) tons per year are required to have RACT.

For leather coating processes, located in the Chicago nonattainment area, the current Illinois VOM regulations define RACT for sources with a maximum theoretical emission (MTE) of at least one hundred (100) tons per year (TPY). Therefore, the Illinois Environmental Protection Agency (IEPA) is proposing RACT regulations for sources in this category of emissions with the potential to emit (PTE) at least twenty-five (25) tons per year of VOM emissions but less than one hundred (100) tons per year MTE.

The proposed rule requires the use of leather coatings with a VOM content of 3.5 pounds per gallon for all leather coatings with the exception of stain coatings and certain specialty coatings. For all coatings applied to specialty leather, the proposed rule imposes a limitation of 38 pounds per 1,000 square foot of finished leather. In addition, the VOC content of stain coatings, other than stain coatings applied to specialty leather, as applied at the source may not exceed ten (10) tons in any twelve (12) month period. This proposed rule is necessary for specialty coatings and stain coatings due to inherent difficulties in controlling VOM emissions that result when certain specialty coatings and stain coatings are used. Use of add-on controls, although technically feasible in some instances, is economically unreasonable.

2.0 GENERAL PROCESS DESCRIPTION AND SOURCES OF EMISSIONS

2.1 General Description of Leather Tanning - Industry Practice

In the production of most types of leather, certain coatings are applied to tanned leather in order to provide protection, cosmetic appeal and certain specialty effects. Prior to the application of coatings, the leather is produced by tanning raw hides from cattle or horses. Horse hides are the raw

material from which cordovan leather is produced. This leather is produced through a bark tanning or vegetable tanning process, after which the cordovan leather is finished without the use of coatings involving VOM. Because the tanning and finishing of cordovan leather does not involve the emission of any VOM, the following discussion will not include a discussion of cordovan leather.

In the production of leather from cow hides, the raw hides are first subjected to a series of processes in which the hides are washed, limed, hair-removed and then chrome tanned. This initial process does not utilize VOM and does not result in VOM emissions. As a result of this process, all of the natural greases and oils are removed from the chrome-tanned hides. In order to produce a usable leather, naturally occurring oils must be replaced so that the leather is pliable. This is normally accomplished throughout the industry by the use of a process known as "fat liquoring," in which oils and greases are emulsified in a water phase and applied to the leather.

In the leather finishing process, various types of leather coatings, or "finishes," are applied, depending upon the type of leather being produced and the intended end use of the leather. The different types of finishes include: "stains" or "dyes," "pigments," "binders," and "top coats" or "sealer coats." The terms "stain" and "dye" are synonymous, as are the terms "top coat" and "sealer coat." For purposes of this discussion, the terms "stain" and "top coat" will be used.

Volatile organic material ("VOM") in any particular coating may be lost to the atmosphere during the process of applying the finish or in subsequent drying steps. Finishes are applied-using a variety of techniques, including spraying, machine brushing, and hand brushing. Drying may be performed at room temperature or in relatively low-heat gas-fired or steam-heated dryers, depending on the type of leather being produced.

Each type of finish serves a particular purpose. Stains and pigments impart color to the leather. Stains will impart color below the surface of the leather, but they do not form a film on the surface or hide imperfections in the leather, as do pigments. Pigments are used mostly on lower-grade leathers to conceal imperfections in the leather. They impart

color only to the surface of the leather and traditionally are water-based, i.e., they contain no VOM.1/ Therefore, generally no VOM emissions result from application of pigments. Binders are used with water-based stains and pigments to help the color adhere to the leather and not bleed. Top coats are applied to impart protective, cosmetic, and other desired qualities to the leather, such as the tackiness of TANNED IN TACK® official football leather. The need for and the amount of VOM contained in the top coat depends on the intended use and desired appearance and feel of the leather. Top coats used by Horween Leather Company may be nitrocellulose water emulsion lacquers2/ diluted with solvents or polyurethane water emulsions, which contain no solvents.

2.1.1 Stains

Horween Leather Company commonly uses four classes of stain: (1) "acid dye," which is diluted with water and used on chrome or chrome retanned leather, and which contains no VOM; (2) "basic dye," which is diluted with water and is used on bark or vegetable retanned leather, such as cordovan, and contains no VOM; (3) "solvent dye," diluted with water and solvents, which contains VOM; and (4) "direct dye" used in mill coloring and chrome retan leather before drying and in a water phase, which contains no VOM.

Due to variations in the retanned hides, in the application of stains to any type of leather, it

The term "water-based" when used to describe a finish, signifies that the active ingredient (e.g., the color) in the particular finish is dissolved in or diluted with water only, and not with a substance that contains VOM. A finish is "solvent-based" if some amount of solvent is used to dissolve or dilute the finish, even though some smaller amount of water may also be present.

Nitrocellulose is an ester of nitric acid that is formed by the action of nitric acid on cellulose (wood pulp). An emulsion is a liquid composed of two or more immiscible substances and a surfactant (emulsifier), which allows the formation of a homogenous liquid that will not separate.

is necessary to frequently blend and reformulate stains throughout the staining process in order to achieve the desired final color. As a result of this, the total VOM contained in a particular batch of stain or applied to a particular hide or group of hides is very difficult to determine. In fact, due to the variability of the grain or color of even a single hide, a stain may need to be reblended several times, with varying concentrations of VOM, to achieve a uniform coloration across the hide. Therefore, although some solvent-based stains may have a relatively high VOM content, the amount of VOM emitted varies considerably during the staining of each hide, depending on the formulation used. Also, because of the relatively small amount of stains used in the production of latigo, snuffed suede and chamois leather, 3/ VOM emissions from these stains constitute the smallest portion of VOM emissions resulting from leather finishing operations.

In addition, many stains are water-based, and are used in conjunction with binders which help the stain to adhere to the leather. Water-based stains do not provide a light-fast coloration, which is necessary for certain uses of leather, i.e., for shoes, coats or bags that will be exposed to sunlight. In order to achieve lasting light-fast coloration, solvent-based stains must be used. Water-based stains have the additional inherent problem that when the leather becomes wet, the color will bleed. Solvent-based stains will not bleed. Therefore, on leathers intended to be used for such items as shoes or coats that will be exposed to rain or snow, solvent-based stains, or water-based stains in conjunction with binders must be used. In addition, for certain types of leather such as suede and chamois, binders cannot be used because they will destroy the suede effect of the finished leather. Therefore, solvent-based stains must be used to color suede and chamois leathers so that the color will adhere to the leather and not bleed or fade in the absence of the protective coating provided by a binder and top coat.

^{3/} See Figures IV-VI.

2.1.2 Binders

Two classes of binders are used: (1) natural binders, such as casine, shellac and blood, which contain no VOM; and (2) acrylic binders, which are acrylic water emulsions that could contain small amounts of VOM in the emulsifier used. Binders form a all acrylic binders contain VOM. film on the leather and create a smooth surface to the leather. They also bind stains and pigments to the leather and retard bleeding and fading of the color. Binders are applied by brush finishing machine or spraying. Horween Leather Company uses mostly natural binders, but it also uses one acrylic binder that contains only 2.5 pounds of VOM per gallon.

2.1.3 <u>Top Coats</u>

After the application of stains or heavy pigment coatings, and binders, the leather may be subjected to additional top coats, depending upon the type of leather being produced. For example, suede leather is produced with VOM-based stains and receives no further top coats. Chamois leather is produced traditionally with VOM-based stains followed by a coating of neatsfoot oil (a naturally occurring oil obtained from the meat packing industry). Neatsfoot oil coating results in no VOM emissions.

Top coats seal and protect the finished leather surface from abrasion, and prevent the color of the leather from bleeding. They also give a smooth, slick feel to the leather, and depending on the formulation, will give the leather a particular luster. Traditionally, the industry will apply nitrocellulose-based water emulsion top coats to the stained or heavy pigmented fat liquored leather to produce leathers used in the manufacture of shoes, coats, purses and other similar products.

The alternative in the industry to using these solvent/water-diluted coatings would be the use of straight solvent-based top coats. Horween Leather Company uses no straight solvent-based top coats. All of its top coats contain some water. Recently, with the advent of concerns over VOM emissions, the industry has turned to the use of water-based urethane top coating in

certain applications to fat-liquored leather. These coatings contain significantly less than 3.5 pounds of VOM per gallon. Thus, most top coats used to finish fat-liquored leather can meet the 3.5 pounds of VOM per gallon emission limit.

2.2 General Description of Horween Leather Company's Operations - Pre-Finishing Process

Horween produces some types of leather using the fat liquoring process described above. However, Horween also produces certain specialty leathers through a process referred to as "hot stuffing," in which certain proprietary raw oils and raw greases are melted and physically beaten into hot leather so that they enter in a molten state. After the fats, oils and greases are added to "the leather, the leather must be dried to remove excess moisture and to allow these materials to cool and set into the hide fibers. After this drying process, the leathers may be subjected to certain mechanical processes such as buffing, staking and splitting, in order to prepare the tanned leathers for finishing. No VOM is emitted from this part of the process.

3.0 DESCRIPTION OF HORWEEN LEATHER COMPANY'S LEATHER FINISHING PROCESSES

In addition to producing standard leathers that are produced throughout the industry, such as latigo, snuffed suede, non-official football leather and chamois, Horween Leather Company produces three types of specialty leathers: cordovan leather from horse hides, hot stuffed CHROMEXCEL® leather, and official football leather with TANNED IN TACK®. As previously stated, there are no VOM coatings applied to cordovan leather. Hot stuffed leather and official football leather with TANNED IN TACK® each present unique finishing problems, which make it difficult to apply a standard pounds-per-gallon-based emission standard to them.

Hot stuffed leather presents unique finishing problems due to the large amount of grease and oil which is used in a nonemulsified state, thereby rendering the leather extremely oily, making the application of water-based stains and top coats nearly impossible. Analysis will show that this grease and oil content ranges at approximately 27-32% by weight on a moisture fat free basis. This large amount of oil and grease presents two problems in

finishing. First, any finish used must be capable of penetrating the oil and grease, and second, it must be capable of adhering to the hot stuffed leather. Accordingly, Horween Leather Company uses stains, binders and top coats that contain VOM to finish its CHROMEXCEL® hot stuffed leather. The top coats are nitrocellulose-emulsified top coats diluted with solvent. VOM is emitted in the staining, drying and top coating stages of production of hot stuffed leather.

In the production of official football leather, proprietary compounds are added during the retanning process which react with proprietary chemicals applied in the final coating stage to produce the required tackiness which remains throughout the life of the leather. This tackiness exists both on the surface and below the surface of the leather. In order to achieve this TANNED IN TACKO, it is necessary to use solvent-based materials. As is the case with hot stuffed leather, VOM'is emitted in the staining, drying and top coating of this leather.

The attached flow charts illustrate the basic finishing processes for each type of leather that Horween Leather Company produces (Figures I-VI). These flowcharts represent the steps in the process subsequent to chrome-tanning and/or retanning, and fat-liquoring or hot stuffing the leather. Each flowchart does not represent a separate production line. The same piece of equipment may be used in any given day for the production of several different types of leather. The amount of time per day that any piece of equipment and type of finish is in use depends on customer demand for the type of leather being produced. Therefore, it is impossible to estimate how many hours in any given day VOM will be emitted from any given stage in the process. Thus, the proposed rule, which limits use of VOM-containing material on a pounds applied per square foot basis rather than on the basis of pounds per gallon applied in a given day is necessary.

3.1 Standard Industry Fat-Liquored Leather Finishing4/

In the coating of fat liquored leather the stains and binders are generally sprayed onto the leather. Any given group of hides may need from one to three coatings of stain. After each application of stain, the leather is dried. Stains are sprayed onto the hides in a spray booth. Horween has two pumpless,

^{4/} See Figures IV-VI.

water wash spray booths that are connected to gas-fired hot-air dryers. The spray booths have been upgraded to install computer controls to minimize oversprays to the maximum extent possible. The transfer efficiency is very high given the spraying of a coat to essentially a two dimensional surface. Thus, the amount of VOM emitted to the atmosphere from the stain spraying process is very small. It is difficult to quantify the amount of VOM that is actually emitted to the atmosphere from each side because much of the material remains in the leather, and the amount emitted varies with each hide.

After each coat of stain is sprayed onto the leather, the stained leather is passed through a hot air drying oven at a temperature of 150° F to 180° F on a conveyor for 90 seconds. Following the initial stain coat the leather may be restained or a binder coat applied, and the drying step is repeated. After these initial applications of stains and binders, the leather may be plated to smooth the finish. Plating is a mechanical process from which no VOM is emitted.

After the leather is plated, top coats would be applied. Top coats are generally applied by spray application followed by drying in hot air ovens. While it would be technically feasible to exhaust these dryers to control equipment, such as afterburners, it would not be economically reasonable. This results from the high volume of drying air, provided by a fan that may be operated at from 6,000 to 8,000 CFM, and the relatively low temperature at which these dryers must be operated, i.e., between 150°-180° F. The drying process results in very dilute exhaust streams. Such dilute exhaust streams would not provide a sufficient concentration of VOM for an afterburner to be an efficient means of eliminating them.

In addition, control would be complicated due to the inherent use of both water-based and solvent-based materials during any given period that the leather is sent through the process. It would be extremely difficult to separate the coatings with high water content from those with high VOM content and only vent the high-VOM emissions to the afterburner.

Very few, if any, older, established tanneries, such as Horween, use add-on controls to eliminate emissions from leather drying because the expense of reconfiguring older plants and adding controls

outweighs the minimal benefits. For example, at Horween Leather Company, installation of a single afterburner to handle emissions from all of its production lines would require the installation of extensive duct work. This construction would be extremely expensive. Most of these tanneries also do not have clearly delineated production lines for each type of leather. Each production area is used to produce more than one type of leather. Therefore, the concentrations of VOM emitted from each stage of production would change frequently. Thus, a limitation on VOM emissions based purely on a pound per gallon limit or a pound per hour limit would be difficult to calculate and enforce.

3.2 Hot Stuffed CHROMEXCEL® Leather Finishing5/

After raw grease and oil are "hot stuffed" into the leather to create the desired pliability and feel, the leather is dried. Then, stain is applied to the leather with a brush finishing machine, which uses rotary brushes to rub the stain onto the leather. The brush finishing is followed by manual swabbing. No spraying occurs during the staining process. In each of these staining stages, VOM is emitted. As noted above, the VOM content of the stains used to stain hot stuffed leather is necessarily high because the stains are solvent-based so that they can penetrate the grease and adhere to the leather. However, the transfer efficiency of the brush finishing machine followed by the manual swabbing is approximately 100%. Very low concentrations of VOM are emitted.

After staining, the leather is hung onto sticks and sent by conveyor into a steam heated dryer, which is maintained at approximately 90° F for 12 minutes. This dryer has no exhaust fan, but it is open to the room. Air is circulated over steam coils by six fans placed above the steam coils. Power for all six of the fans comes from a three horsepower motor. The leather hangs on large sticks and travels by conveyor below the steam coils. The entire process is repeated, after which the leather is piled up in a room overnight. During the drying phase, VOM is emitted.

^{5/} See Figure I. Amounts of VOM applied per side at each stage of the process are given in pounds of VOM per side.

The next day a mechanical process is performed on the dry leather. Then, an acrylic binder coat, containing no VOM, is applied in a similar manner (brush finishing, manual swabbing, drying), followed by two sprayed coats of water emulsified nitrocellulose top coating. The nitrocellulose water emulsions used to coat CHROMEXCEL® are diluted with solvents, so that the VOM content is normally in the range of 5.5 to 6.5 pounds of VOM per gallon depending on the VOM content of the solvent used for dilution. nitrocellulose is diluted with solvent to increase the ability of the nitrocellulose to penetrate and adhere to the leather. The solvents also create the desired luster for the leather and dilute the solid content of the nitrocellulose emulsion so that it flows onto the leather more effectively when it is sprayed on. each top coat spray application, the leather is sent into a hot air dryer, which is maintained at 150° F to 180° F for about 90 seconds. This dryer completely dries the surface of the leather. This dryer is exhausted through a fan rated at approximately 6,000 to 8,000 CFM. VOM emissions also result at this stage. The finished leather is then plated to smooth the surface, followed by an application of neatsfoot oil by a roller coater to finish the leather.

Again, the emissions from portions of the stain application and drying areas would be very difficult to control. Presently there are no exhausts from the steam-heated dryer or the room in which the dryer is located. Emissions of sprayed top coat would be difficult to control because of the low VOM concentration and presence of water.

As previously stated, Horween Leather Company is the principal producer of hot stuffed leather in the world. Horween Leather's trademark, CHROMEXCEL®, hot stuffed leather, accounts for over 95% of the hot stuffed leather produced in the United States. Given the high oil and fat content of the leather, Horween Leather Company is unaware of any means by which it can produce a stained and finished hot stuffed leather which currently meets the requirements of its customers in terms of coloration, finish and durability without the use of solvent-based finishes.

Horween Leather has experimented with the development of water-based polyurethane top coats which would reduce VOM emissions from this portion of the CHROMEXCEL® finishing process. Horween has been unable to formulate a water-based top coat that will

adhere to the leather and still result in a finish that will meet customer specifications because water-based top coats result in a very dull surface that is unacceptable to Horween's customers. At the present time Horween Leather also is unaware of any means by which stains with a lower solvent content could be applied due to the high grease and oil content of the leather.

3.3 TANNED IN TACK® Official Football Leather 6/

Horween also produces a unique leather used to produce the official footballs used by the National Football League and college football teams. This football leather requires the use of superior raw material with very few scratches, fly bites or holes because the stain used to impart color to the leather will not conceal imperfections. In the production of official football leather, certain specialty chemicals are added in the retanning process. After fat liquoring, the leather is paste dried, buffed, and embossed with football graining. No VOM is emitted up to this stage in the production process. After these processes, water-based stain coats, containing no VOM, are sprayed onto the leather followed by drying in the same hot air ovens mentioned above. Generally, three coats are applied.

Then, a specialty finish containing proprietary chemicals is applied by hand with a brush to the stained leather. The transfer efficiency of this stage of the process is very high, resulting in low concentrations of VOM emissions. The leather is then hung in a room, at room temperature, for five days for curing. During those five days, the proprietary chemicals introduced in the retanning process react with the proprietary chemicals applied in the finish coat to produce the TANNED IN TACK®.

Control over any emissions from the hand brushing and drying processes would be difficult because the brushing, drying and curing occurs at room temperature over an extended period of time, thus resulting in a very low VOM concentration. In addition, Horween Leather estimates that approximately 40% of the VOM content of the specialty finish applied to this leather actually remains in the leather after the leather is cured.

<u>6</u>/ See Figure II.

As previously stated, Horween Leather Company is the only company in the world that produces this proprietary trademarked leather. Because of the necessity of creating the chemical reaction used to produce the TANNED IN TACK® throughout the leather, it is necessary that solvents be used in the proprietary specialty finish. At the present time Horween Leather Company is unaware of any means by which this could be accomplished with water-based materials. A water-based finish material would not create the chemical reaction necessary to create the tacky consistency required for official footballs.

3.4 Nonofficial Football Leather 7/

Horween also produces leather for the production of nonofficial footballs, which does not have TANNED IN TACKO. This leather is produced from low-grade leather which may have many scratches, fly bites and holes. Horween chrome tans and embosses this leather. Then, two coats of heavy pigment and binders are applied through a brush finishing machine. leather is dried in a gas infrared dryer (150° F to 180° F) after application of the pigment and binder. The top coat is applied in the same spraying process described above and again dried in the hot air dryers. The top coat is a polyurethane water-emulsion with a very low VOM content. The binder and top coat used on this leather each have a very low VOM content, which falls below the current limit of 3.5 lbs/gal.

4.0 FEASIBILITY OF FURTHER CONTROL

4.1 Reformulation

Given the concerns over VOM emissions, the industry generally has reformulated stains, binders and top coats to coatings which utilize water-emulsified coatings or water-based materials wherever possible. For example, Horween Leather Company, as a result of its efforts to switch to water-based or low VOM content leather finishes, was successful in converting its nonofficial football leather top coat from a solvent-based urethane to a water urethane emulsion in 1991. Nonofficial football leather does not require the TANNED IN TACK®, so this conversion to a water-based urethane coating is feasible for the

^{2/} See Figure III.

nonofficial football leather, but not for the official football leather. As a result, the VOM content of this coating decreased from over 7 pounds per gallon down to approximately 1.8 pounds per gallon. Thus, the limitation of 3.5 pounds per gallon is reasonably available control technology for most coatings, with the exception of certain coatings previously discussed.

In the finishing of fat liquored leathers, certain stains may not be reformulated for water-based usage because of the two inherent problems discussed above in section 2.1.1. The first is that water-based stains are water-soluble and leather which will be subjected to moisture, such as shoe or coat leather, would bleed. Therefore, solvent-based stains are required to provide color fastness, i.e., exposure to water will not make the color bleed. This is especially true in suede and chamois leathers which are produced without binders.

The other inherent problem is that to date, the industry has been unable to develop light-fast stains which are water-based. In order to provide a stained leather whose color will hold up to sunlight exposure, it is necessary to use solvent-based stains. Water-based stains fade when exposed to sunlight, whereas solvent-based stains do not. The actual volume of stains compared to top coat finishes in the production of fat liquored leather is very small. resulting emissions from solvent-based stains are likewise very minimal when compared to overall emissions of leather finishing of fat liquored Therefore, with the exception of the water-fast and light-fast stains, all of the coatings used to finish fat liquored leather are generally in compliance with 3.5 pounds of VOM per gallon, except for certain specialty leather finishes, such as the official football TANNED IN TACK® leather finish.

4.2 Add-on Control Devices

Four alternative technologies for controlling VOM emissions at Horween Leather Company were considered. These technologies include carbon adsorption, catalytic oxidation, recuperative thermal oxidation, and regenerative thermal oxidation. Initially, each of these alternatives was evaluated for technical feasibility and then the most promising alternative was evaluated for economic feasibility.

Technical Feasibility of Alternatives

Carbon adsorption was determined to be a poor technology for this application. This conclusion is primarily based on the fact that Horween Leather Company's emissions contain significant amounts of alcohols. Specifically, ethyl alcohol and methyl alcohol would comprise a substantial portion of the VOM load from the leather finishing operation. Both of these compounds (especially methyl alcohol) have poor carbon adsorption efficiencies. Two vendors of carbon adsorption equipment were given the general specification for this control application. perceived difficulty in obtaining acceptable removal efficiencies because of the presence of the alcohols. Both also indicated that very large carbon beds would be necessary and that the capital cost would be prohibitive. Therefore, carbon adsorption was eliminated from further consideration.

Catalytic oxidation was also evaluated and determined to have poor characteristics for this control application. This conclusion is primarily based on the very low heating value of the gas stream. It is estimated that the gas would contain less than 7BTUs per cubic foot which would not provide a significant temperature rise against the catalyst bed. Also, the presence of urethanes and other gas constituents which may blind or poison the catalyst made the application of this technology questionable. Therefore, catalytic oxidation was eliminated from further consideration.

Thermal oxidation was considered to have the best characteristics for obtaining reliable removal of VOMs for this application. Two options for thermal oxidizers were evaluated: (1) a recuperative thermal oxidizer which would recover 70% of the heat in the exhaust gases, and (2) a regenerative thermal oxidizer which would recover approximately 95% of the heat in the exhaust gases. A recuperative thermal oxidizer would require a significant amount of supplemental fuel because of the high volume and low VOM concentration of the exhaust gases. A regenerative thermal oxidizer would require less supplemental fuel, but would represent a much higher capital investment. Also, the substantial weight of a regenerative thermal oxidizer (the unit specified for this application would weigh approximately 600,000 lbs) would require significant structural improvements or modifications to the building at Horween Leather Company in order to allow a rooftop installation. Based on the limited

space and desire to keep the unit away from public access, a rooftop installation was considered the only viable approach. Therefore, the regenerative thermal oxidizer was eliminated from further consideration.

Based on the foregoing analysis, the recuperative thermal oxidizer is the most appropriate technology (from a technical feasibility standpoint) for this VOM control application.

Economic Feasibility of Recuperative Thermal Oxidizers

A draft cost estimate for a recuperative thermal oxidizer, regenerative thermal oxidizer and a catalytic oxidizer were completed by IEPA. A copy of the draft IEPA assessment is included as Attachment This analysis was based on production data and rough estimates of exhaust levels and operating hours provided by Horween Leather Company to IEPA and standard cost methodology presented in the USEPA document "OAQPS Control Manual," 4th Edition, EPA 450-3-90-006, January 1990. Horween Leather Company could not provide IEPA with actual operating data and site-specific cost estimates prior to the drafting of its cost estimates. The summary of the analysis, based on standard cost estimates and the rough data provided by Horween, showed a thermal recuperative oxidizer as the most economical alternative with a VOM control cost of \$4,942 per ton. IEPA's assessment also concluded that catalyst blinding and/or poisoning would likely render the catalytic oxidizer option infeasible.

The economic feasibility of a recuperative thermal oxidizer was reevaluated based on additional, more complete process information, quotations from vendors, and site-specific cost estimates of the thermal incinerators and duct work. These key parameters used in the IEPA cost estimate were revised based on additional process information provided by Horween Leather Company. Each of the following changes had a significant impact on the VOM control costs:

• IEPA's assessment assumed that 91 tons per year of VOM would be exhausted to the control device. Two VOM emissions sources at the facility are not equipped with a ventilation exhaust system and could not feasibly be connected to the VOM control device. These include the Chromexcel Stick Dryer which cures the stain applied by the brush finishing machine (VOM emissions equal 10.5

tons per year) and the Vitasol hand brush and hang drying operation for the top grade football finishing (VOM emissions equal 11 tons per year). When these sources are excluded, total VOM emissions that could be routed to the control device sum to 69.5 tons per year, and the total VOM removed (assuming a 98% efficiency) is 68.1 tons per year. It should also be noted that each of the spray booths are equipped with a water curtain system to control overspray, which may also remove a significant quantity of the water soluable VOM constituents.

- The operating schedule used in the IEPA evaluation was 8 hours per day. Horween Leather Company reports that the typical operation schedule is 12 hours per day. Therefore, the reevaluation of economic feasibility used a 12-hour per day operating schedule.
- IEPA's evaluation included a unit cost for natural gas of \$1.95 per MMBTU and unit cost for electricity of \$0.045 per KW-Hr. Horween Leather Company reports that their actual utility rates are \$2.80 per MMBTU for natural gas and \$0.085 per KW-Hr for electricity. The actual utility rates were incorporated into the reanalysis of economic feasibility.

The first step of the revised cost estimate was to develop a preliminary design of the duct work needed to connect two spray booths and four dryer exhausts to the recuperative thermal oxidizer. A preliminary routing plan and duct dimensions were developed and are shown in the specifications listed on Attachment Other pertinent information on the process indicated that a significant corrosion potential would exist in the duct work. The exhaust gases are near saturation because of the water curtain systems on the spray booths and the coating water content of the coatings that is driven off in the dryers. addition, ammonia is used in the process and would be expected to be in the exhaust gases. The presence of ammonia and the chance of condensation because of nearly saturated conditions substantially increases the corrosion potential in the duct work. For this reason, the duct work construction material was specified to be 304 stainless steel. A cost estimate based on these preliminary specifications was obtained from a Chicago-area contractor that specializes in process duct work installations. Chicago Blow Pipe

Company estimates that the installed cost of duct work (excluding control dampers and expansion joints) for this project would be approximately \$195,000.

Two cost estimates for recuperative thermal oxidizers were also obtained. Each of the vendors was given the following project specifications:

- Gas Flow 70,000 ACFM
- Gas Temperature 70° F
- Gas Moisture Content 90% humidity or 2.1% moisture by volume
- VOM Load 35 lbs/hr
- VOM Heat Content 15,000 BTU/lb
- Exhaust Gas Expected to Contain 0 to 25 ppm ammonia gas

Both vendors provided a cost estimate for the incineration system, taxes, freight, and installation (excluding support structures, piping, and electrical). The preliminary cost estimates from these vendors were as follows:

- Salem Englehard, South Lyon, Michigan \$1,000,000
- Somerset Technologies, New Brunswick, New Jersey
 \$900,000

These quotations were used to derive the purchased equipment cost in accordance with the cost estimating methodology of the OAQPS Control Cost Manual. Based on factors provided in this manual, the vendor quotes represent 1.16 times the purchased equipment cost. Therefore, the total quoted costs for the incinerator and duct work divided by 1.16 yielded a purchased equipment cost of approximately \$944,000. The total capital investment was then calculated from the OAQPS Cost Control Manual as 1.61 times the purchased equipment cost. The estimated total capital investment of \$1,520,000 excludes any site preparation work that would be needed. Because the recuperative thermal oxidizer would weigh approximately 200,000 lbs, reinforcement of the building's roof support system would be required. This cost cannot be reliably estimated without completing a structural engineering analysis of the building. Based on a 10%

discount rate and ten-year project life, the annual capital recovery was calculated to be approximately \$247,300 per year. These calculations are summarized in Attachment 3.

As previously stated, the thermal oxidizer would weigh approximately 200,000 pounds or 100 tons. Given the age and construction of Horween's buildings, before any serious attempts to design an installation of the oxidizer on the roof would proceed, a complete structural evaluation of the building and building foundation would be required. Prior installation of a 15 ton press required engineering and installation of a separate new foundation and support system extending downward through the building. Based upon these considerations, Horween has considerable doubt that a 100 ton thermal oxidizer can feasibly be installed on the roof of its building. Clearly, if such a system could be installed, the cost of the structural evaluation and ultimate cost of installation would significantly increase the capital costs and cost per ton figures.

Annual operating costs, excluding natural gas and electricity consumption, were also calculated based on standard methodologies in the OAQPS Control Cost Manual. The natural gas consumption was calculated based on mass flow of enthalpies at the expected exhaust gas temperature and incinerator control temperature. This generated a total required heat input of approximately 122 MMBTU/hr. The supplemental natural gas usage was then calculated based on a 10% overall energy loss factor and 70% heat recovery in the recuperative thermal oxidizer. The supplemental heat input was estimated to be approximately 49 MMBTU/hr. Based on the operating schedule of 4,128 hours per year, annual supplemental heat input is approximately 201,000 MMBTU7yr.

The electricity consumption was estimated based on the brake horsepower requirements of the incinerator fan provided by Somerset Technologies. This estimate was translated to kilowatt hours based on a 90% efficiency and 4,128 operating hours per year. A summary of the calculations used to derive the annual gas and electricity consumptions are presented on Attachment 4.

The estimated natural gas and electricity costs were calculated based on actual utility rates provided by Horween Leather Company and amounted to \$562,900 per year and \$87,400 per year, respectively. This yielded

a total annual operating and maintenance cost of approximately \$737,000. When the capital recovery cost is added, this yields a total annual cost of approximately \$984,300. Accordingly, the cost per ton of VOM removed was calculated to be approximately \$14,450 per ton. These costs calculations are also presented on Attachment 3.

The operating costs are based on only including fuel consumption during the 12-hours of production which generate VOM emissions. If the recuperative thermal oxidizer is deactivated each day for the remaining 12-hour period, its shell and tube heat exchanger would be subject to excessive thermal stresses. The manufacturer recommends operating the unit in an idle mode with a minimal flow and 1,000° F temperature set Operation in this idle mode will consume approximately 15% of the natural gas required during the normal operation. This would add approximately \$84,400 to the supplemental fuel expense and would raise the total annual costs to approximately \$1,068,700 per year. This translates to a VOM removal cost of \$15,690 per ton.

Thus, the foregoing discussion demonstrates that even a technically feasible control option is not economically reasonable for Horween Leather Company.

5.0 EXISTING RULE

The existing Illinois RACT rule for leather coating processes in the Chicago nonattainment area has a level of applicability of 100 TPY MTE. MTE are calculated by multiplying the design capacity or maximum production rate and 8760 hours per year of operation before add-on controls. The RACT provision of the existing rule (35 Ill. Admin. Code Subpart PP) requires compliance with at least one of the following:

- Emission capture and control techniques which achieve an overall reduction in uncontrolled VOM emissions of at least 81% from each emission unit;
- b. For coating lines, the daily-weighted average VOM content shall not exceed 3.5 lbs./gal. of coating as applied (minus water and any compounds which are specifically exempted from the definition of VOM) during any day; or
- c. An alternative control plan which has been approved by the Agency and approved by the U.S.EPA as a SIP revision.

6.0 EMISSIONS DATA

[IEPA HAS--SEE 1991 DATA AND ANALYSIS OF VOM CONTENT OF FINISHES WITH LETTER TO SYED RIZWAN DATED NOVEMBER 24, 1992 (ATTACHMENTS A & B)]

7.0 OTHER STATES' RACT RULES

7.1 Wisconsin

Wisconsin's emission limitation for VOM from leather coating application is 38 pounds per 1,000 square feet of coated product, calculated on a daily average basis. Wis. Admin. Code §NR422.085. The daily average VOM emission rate is the total amount of VOM emitted during the day divided by the prorated surface area of leather coated during the day. The formula for determining the prorated surface area of leather coated during the day is set forth in the regulation, a copy of which is attached to this document.

This regulation became effective February 1, 1987, but it has not been approved by U.S. EPA as a revision to the Wisconsin State Implementation Plan ("SIP"). This regulation serves as the model for the proposed Illinois rule for specialty coatings. Adoption of this rule will result in consistency of RACT requirements in U.S. EPA Region V.

7.2 <u>Massachusetts</u>

Massachusetts has proposed to amend its RACT regulations to control emissions of VOM from stationary sources with a PTE of equal to or greater than 50 TPY. The proposed regulation creates RACT requirements for Leather Surface Coating in Mass. Regs. Code tit. 310, § 7.18(22). The maximum permitted pounds of VOM per gallon of solids applied is 27.4 lbs./gal. This is equivalent to a limit of 5.8 lbs.VOM/gal., assuming a solvent density of 7.36 lbs./gal.

These provisions are expected to be adopted by the State in mid-January 1993. They have not been approved as a revision to Massachusetts' SIP.

7.3 New Jersey

New Jersey regulates VOM emissions from leather coating operations under its general regulations applicable to surface coating and graphic arts operations, 7 N.J. Admin. Code §27-16.5(a). The regulation prohibits VOM emissions

from a surface coating operation to exceed the maximum allowable hourly emission rate as determined by multiplying the maximum allowable emissions per volume of coating, minus water, by the volume of coating, minus water, applied per hour. The maximum allowable hourly emission rate, minus water, for leather coating is 5.8 lbs./gal. If more than one product is manufactured on a single surface coating line, a weighted daily mean of the emissions can be calculated to demonstrate compliance with the regulation.

These provisions have been approved as part of New Jersey's State Implementation Plan ("SIP").

7.4 New York

New York has proposed to amend its Surface Coating Processes VOC (volatile organic compound) emissions regulations, 6 N.Y. Comp. Codes R. & Regs. Part 228, to extend to upstate facilities with annual potential emissions of VOM of 50 tons for leather coating processes, except that in severe nonattainment areas for ozone, the applicability is 25 tons. The maximum permitted pounds of VOC per gallon (minus water and excluded VOC) of coating at application for leather coating is 5.8. lbs./gal.
"Excluded VOC" are compounds excluded from the definition of VOC in 6 N.Y. Comp. Codes R. & Regs. §200.1.

The 5.8 lbs./gal., minus water and excluded VOC, limitation has been in effect for several years. The proposed regulation does not change the existing limit for leather coating.

The existing provisions have been approved as part of New York's SIP, but continued satisfaction of the requirements for the ozone element of the SIP depended on the adoption and submittal of RACT requirements by January 1985, and depends on the adoption and submittal of additional RACT requirements each subsequent January, for sources covered by Control Techniques Guidelines (CTGs) issued by the previous January. 40 C.F.R. §52.1673(a) (1991).

8.0 SUMMARY

Pursuant to the requirements of the CAA, as amended in 1990, the IEPA assessed the technical feasibility and economic reasonableness for control of VOM emissions from leather coating processes for sources with the potential to emit (PTE) at least twenty-five (25) tons per year. The Agency proposes a RACT rule which affects those sources with maximum theoretical emissions (MTE) less than one

hundred (100) tons per year, and with the potential to emit (PTE) at least twenty-five (25) tons per year, which is the applicability level required pursuant to the 1990 amendments of the Clean Air Act. RACT for these leather coating sources in this emissions range is 3.5 pounds per gallon with the exception of certain specialty coatings. This is the same RACT limitation applicable to larger sources that are currently being regulated by 35 Ill. Adm. Code 218.926, with the exception of stain coatings and the specialty coatings. For specialty coatings, which include hot stuffed leather top coats and official TANNED IN TACK® football finish, the proposed RACT limitation is 38 pounds of VOC per 1,000 square foot coverage. This limit is the same as Wisconsin's limit, the only other RACT limit in Region V. In addition, the VOM of stain coatings as applied at the source in any consecutive twelve (12) month period may not exceed ten (10) tons. The Agency's proposal is technically feasible and economically reasonable.

2337s

FIGURE I: FLOW CHART - CHROMEXCEL® LEATHER FINISHING

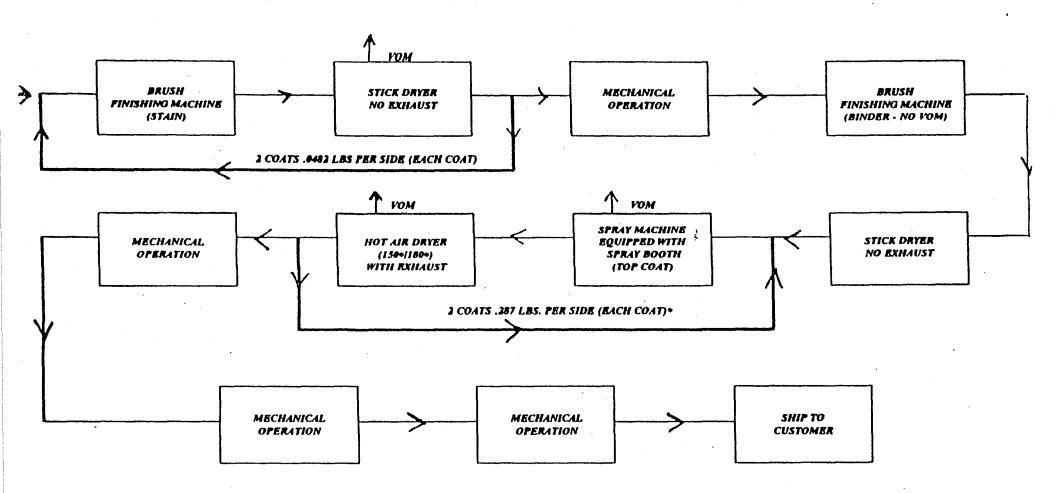
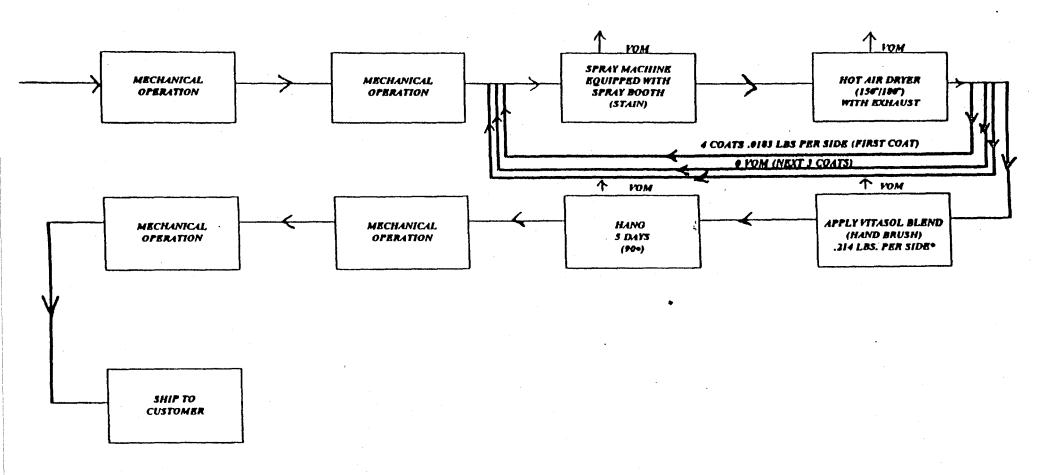


FIGURE II: FLOW CHART - TOP GRADE FOOTBALL FINISHING



Pigure 49% Retention In Louthers Number becomes .117 Lbs. Per Side. Approximatly 50 sides per hour, four days per week when in production.

FIGURE III: FLOW CHART - LOW GRADE FOOTBALL FINISHING

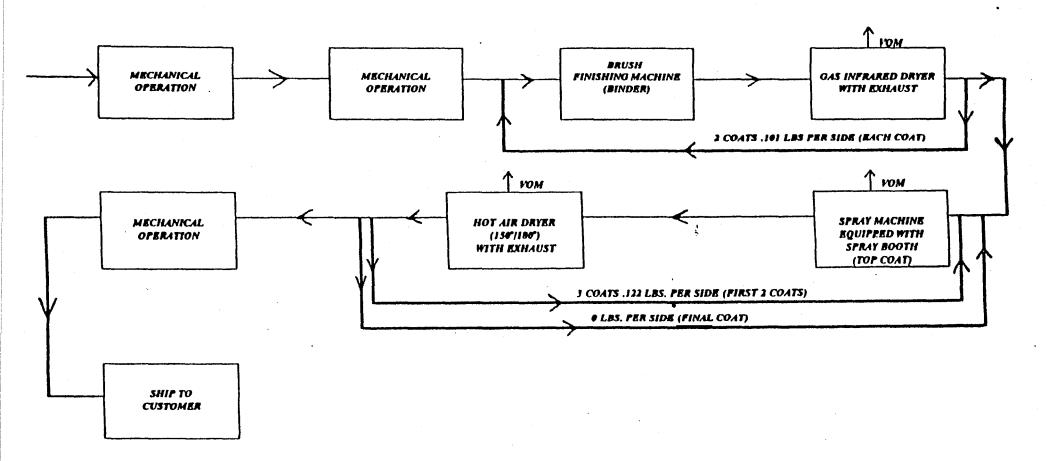


FIGURE IV: FLOW CHART - SNUFFED SUEDE LEATHER FINISHING

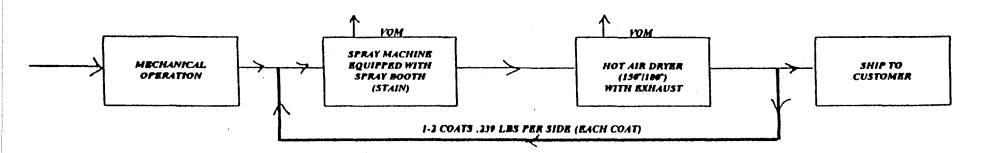


FIGURE V: FLOW CHART - CHAMOIS LEATHER FINISHING

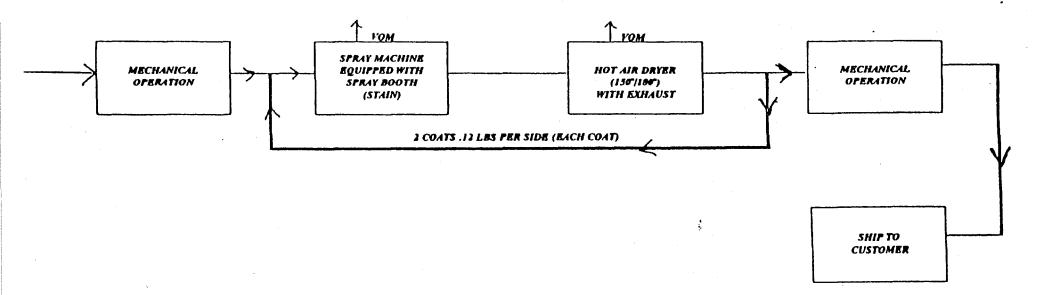
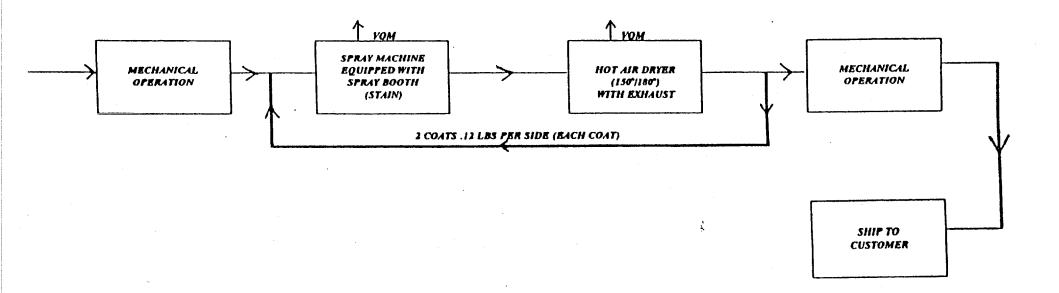


FIGURE VI: FLOW CHART - LATIGO LEATHER FINISHING



DRAFT

FILE: BCKSTD2

MEMORANDUM

DATE: March 1, 1993

TO: Gary Beckstead

FROM: John C. Reed



Please find attached detailed cost estimates for Horween Co. based upon the Fax transmission from Roberta M. Saielli of February 11, 1993 and using the standard cost methodology of USEPA's "OAQPS Control Cost Manual," 4th Ed. (EPA 450/3-90-006, Jan. 1990). The summary cost estimates were as follows:

		\$/ton
Thermal Incinerator	(70% Heat Recovery) (95% Heat Recovery) or (70% Heat Recovery)	4942 6322 6439

Since there is a possibility of catalyst blinding and/or poisoning with catalytic incinerators I would recommend use of a 70% thermal recovery thermal incinerator as being the most econosical choice. My opinion is that the cost per ton is well within those levels that have previously been required to install controls.

In reviewing the draft Technical Support Document, I find it lacking in vital details that would be needed to support any RACT determination:

- 1. There is no discussion of USEPA technical support documents in this area. There should at least be an indication of what and how such a literature search was conducted as well as a detailed analysis of any documents found.
- 2. There is no documentation of the method or accuracy of the emissions in lb/side that are given in the flow sheets. In addition to lbs/side there also needs to be data on ft2/side and number of sides per year for each category. I would suggest a tabular format similar to the attached "Analysis of Flow." The reason for including the ft2/side is that the proposed regulation uses that format and number of sides per year is to determine if partial control is feasible as well as a possible exemption level from control e.g. please note that the chromexcel and snuffed suede spray machine and dryer produce approximately twice the emissions of other spray machine and dryer operations.

Attachment 1

:		•	
	DRAFT	FUEDVAL THEE	ED 1500 5000
FILE: HORWEEN3. WK1		THERMAL INCIN	ERATUR COST
DISK: NO1_29	・マトト	HORWEEN CO.	•
		Case 1	Caaa 0
Total Gas Inlet Flow Rat	- ACTM	70000	
Gas Inlet Temperature, I		70	
Total Gas Inlet Flow Rat		56852	· -
Waste Flow Rate, Ton/Yr	e, porm	91.00	-
Operating Hours per Year		2752	2752
Waste Holecular Weight	·	28	
Waste Lower Heat of Comb	wetion Prii/Ib	15000	15000
Fractional Heat Recovery	The state of the s	0.7	0.95
Incinerator Operating Te		1600	
Reference Temperature, F		70	70
Aux. Fuel Lower Heat of		1000	1000
Equipment Life, yra	COMPUNCTION, BIC/SCF	1000	1000
Aux. Fuel Cost, \$/MM BTU	•	1.95	1.95
Electricity Cost \$/Kw		0.045	
Interest Rate		0.043	0.045
Fractional Energy Loss		0.1	0.1
Ligarional puelly poss	·	V. 1	0.1
	•		
Heat Exchanger Outlet Te	mperature. F	1141	1523.5
Energy Loss, BTU/Hr	•	11630015	11544838
Sensible Heat Loss, BTU/	Hr	34892444	5260028
Total Heat Loss, BTU/Hr	٠	46522459	16804866
Aux Fuel Useage, SCFM	• -	775.37	280.08
	•	•	
• •			
		2 1 /2 000	21/4.000
M&S Cost Index Quarter/y	ear	3rd/1992	3rd/1992
M&S Index	•	949.7	
Thermal Incinerator Cost		\$386,031	
Purchased Equipment Cost	· . ·	\$455,517 \$136,655	\$1,319,731
Direct Installation Cost			\$395,919
Indirect Installation Co.	STS	\$141,210	\$409,117
Total Capital Investment		\$733,382	\$2,124,767
Equipment Capital Recover	ry Factor	0.1627	0.1627
		•	•
Operating Labor		\$2,563	\$2,563
Maintenance Labor & Mate:	rials	\$4,905	\$4,905
Aux Fuel Annual Cost	. •	\$249,658	\$90,182
Electricity Annual Cost		\$30,427	\$30,862
Overhead		\$4,481	\$4,481
Administrative Charges		\$14,868	\$42,495
Property Taxes		\$7,334 \$7,334	\$21,248 \$21,248
Insurance		\$119,355	\$345,796
Capital Recovery		\$440,725	\$563,781
Total Annual Cost		0.98	0.98
Control efficiency		\$4,942	\$6,322
Cost Effectiveness \$/Ton		421022	30,022

FILE: HORWEEN2.WK1

DRAFT

Attachment 2

CATALYTIC	INCI
HORWEEN CO	

π

DISK:NO1_29	HORWEEN CO.
·	Case 1
Total Gas Inlet Flow Rate, ACFM	70000
Gas Inlet Temperature, F	70
Total Gas Inlet Flow Rate, SCFM	66852
Waste Flow Rate, Ton/Yr	91.00
Operating Hours per Year	2752
Waste Molecular Weight	28
Waste Lower Heat of Combustion, BTU/Lb	15000
Fractional Heat Recovery	0.7
Incinerator Operating Temperature, F	600
Reference Temperature, F	70
Aux. Fuel Lower Heat of Combustion, BTU/SCF	1000
Catalyst Space Velocity, 1/Hr	30000
Catalyst Life, yrs	2
Equipment Life, yrs	10
Catalyst Cost, \$/ft3	650
Aux. Fuel Cost, \$/MM BTU	3.3
Electricity Cost \$/Kw	0.059
Interest Rate	0.1
Heat Exchanger Outlet Temperature, F	441
Energy Loss, BTU/Hr	3998520
Sensible Heat Loss, BTU/Er	12128793
Total Heat Loss, BTU/Hr & J	16127313
Aux Fuel Useage, SCFM	268.79
Catalyst Volume, Ft3	134.24
Incinerator Flow Rate Per Unit	33560.39
Number of Units	2
Catalytic Incinerator Cost	\$915,632
and the state of t	\$1,080,446
Purchased Equipment Cost Direct Installation Costs	\$324,134
Indirect Installation Costs	\$334,938
Total Capital Investment	\$1,739,518
Equipment Capital Recovery Factor	0.1627
Catalyst Capital Recovery Factor	0.5762
Catalyst Cost	\$87,257
Operating Labor	\$2,563
Maintenance Labor & Materials	\$4,905
Catalyst Replacement	\$50,277
Aux Fuel Annual Cost	\$146,462
Electricity Annual Cost	\$39,894
Overhead	\$4,481
Administrative Charges	\$34,790
Property Taxes	\$17,395
Insurance	\$17,395
Capital Recovery	\$267,762
Total Annual Cost	\$585,92 5 \$6,4 39
Cost Effectiveness \$/Ton	\$01498

66852.45

70000

Attachment 3

FILE: HORWEEN1.WK1

DISK:NO1_29

Total Cim

Total SCFM

Material	Amount lbs/side	Equipment	Cfm	SCFM
Chromexcel	0.0964	Stick Dryer		0
Chromexcel	0.574	Spry Mchne+Ht Ar Dryr	32000	30426.22
To Grde Ftbl		Spry Mchne+Ht Ar Dryr	32000	30426.22
Tp Grde Ftbl		Hnd Brsh	0	0
Lw Grde Ptbl		Gs InfrRd Dryer	6000	6000
Lw Grde Ftbl		Spry Mchne+Ht Ar Dryr	32000	30426.22
Snffd Suede		Spry Mchne+Ht Ar Dryr	32000	30426.22
Chamois		Spry Mchne+Ht Ar Dryr	32000	30425.22
Latigo		Spry Mchne+Ht Ar Dryr	32000	30426.22
Total lb/yr	182000			
Op Hrs/yr	2752			
Av. Lb/hr	66.13372			
· · · · · · · · · · · · · · · · · · ·				

OAQPS CONTROL COST MANUAL

Fourth Edition

EPA 450/3-90-006 January 1990

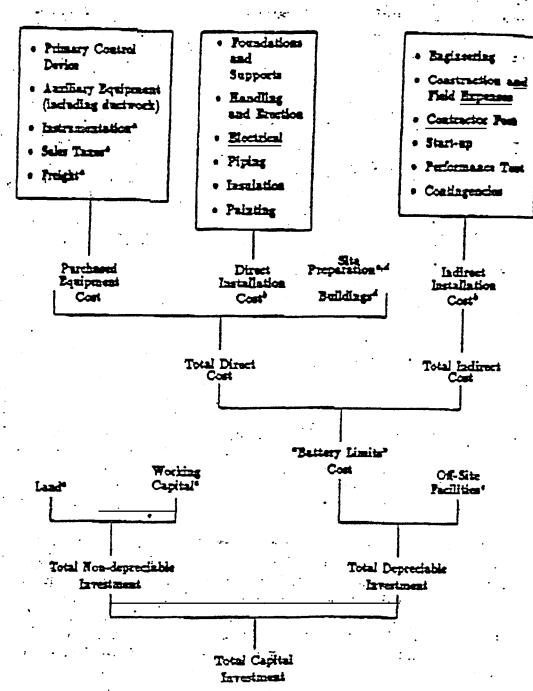


United States Environmental Protection Agency
Office of Air Quality Planning and Standards

Research Triangle Park, North Carolina 27711

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Figure 2.1: Elements of Total Capital Investment



^{*} Typically factored from the sum of the primary control device and sucillary squipment casts.

Typically factored from the purchased equipment casts.

Usually factored only at "green rooks" installations.

Unifies the other direct and indirect costs, costs for these facus usually are not factored from the purchased equipment casts. Rather, they are also and costed separately.

Normally not required with said-on control systems.

TO

Figure 2.2: Elements of Total Annual Cost

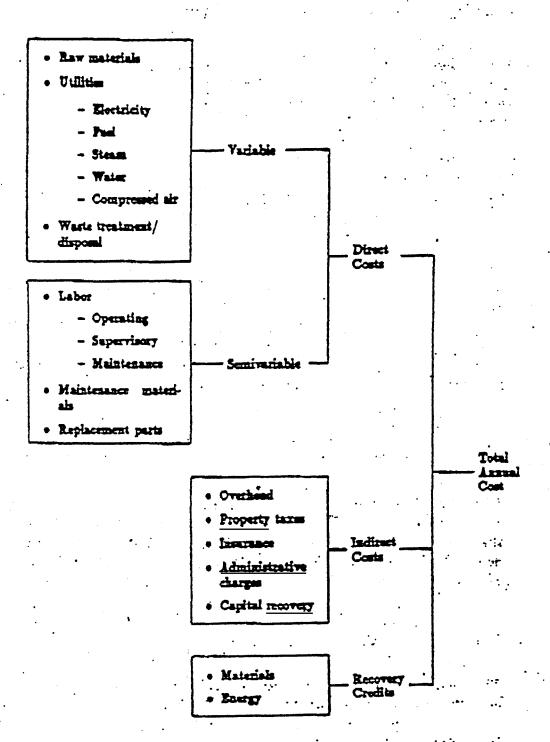


Table 3.8: Capital Cost Factors for Thermal and Catalytic Industrators

Cost Item		Factor
Direct Costs	** ** **	
Purchased equipment costs	•	•
Indinerator (EC) + suriliar	y equipment ^b	As estimated, A
Instrumentation ⁴		0.10 A
Sales taxes	· Alexander	6.03 A
Freight	•	0.05 A
Purchased equipment	cost, PEC	B = 1.18 A
Direct installation costs	· · · · · · · · · · · · · · · · · · ·	• :
Foundations & supports		0.08 B
Handling & erection		0.14 B
Electrical		9.04 B
Piping	•	0.02 B
Insulation for ductwork		0.01 B
Painting		0.01 B
Direct installation cost	;	0.30 B
Site preparation		As required, SP
Buildings	en e	As required, Bldg.
Total Direct Cost	, DC I	30 B + SP + Bidg.
Indirect Costs (installation)	·	•
Engineering		0.10 B
Construction and field expen	Ses	0.85 B
Contractor fees	•.	0.10 B
Start-up		0.02 B
Performance test		0.01 B
Contingencies		0.03 B
Total Indirect Co	et, IC	0.31 B
•		
Total Capital Investment = DC +	IC I	61 B + SP + Bldg.

^{*}Reference [25].

Decreors and say other equipment normally not included with unit formished by <u>becharator render</u>. Instrumentation and <u>controls</u> often fermished with the incincretor, and thus often included in the SC. If ductivers dimensions have been cotablished, cost may be estimated based on \$10 to \$1.2/ft² of surfaces for field application. For hereigner and stocks may also be instituted.

Table 3.9: Capital Costs for Thermal and Catalytic Incinerators

Example Problem

	Cost	, \$
Cost Item	Thermal-	Finid-Bed
	Lacuperative	Catalytic
Direct Costs		
Purchased equipment costs		
Incinerator (EC)	\$254,200	\$458,200
Astiliary equipment		
Sam = A	\$254,200	\$488,200
Instrumentation, 6.1A	25,400	46,800
Sales taxes, 0.03A	7,530	14,000
Freight, 0.05A	12,790	23,400
Purchased equipment cost, B	\$300,000	\$552,400
Direct installation costs		
Foundation and supports, 0.98B	24,000	44,200
Handling and erection, 0.14B	42,900	77,300
Electrical, 0.04B	12,000	22,100
Piping, 0.02B ,	6,800	11,000
insulation (for ductwork), 0.91B	5,000	5,520
Painting, 0.01B	3,800	5,520
Direct installation cost	\$90,000	\$155,500
Site preparations	-	
Buildings*		.—
• • •		·
Total Direct Cost	\$390,000	\$718,000
indirect Costs (installation)		•
Engineering, 0.19B	30,000	55,200
Construction and field expenses, 0.05B	15,000	27,600
Contractor fees, 0.10B	30,000	55,200
Start-up, 0.02B	6,000	11,000
Performance test, 0.01B	3,000	5,520
Contingencies, 0.03B	9,000	16,800
Total Indirect Cost	\$93,000	\$171,100
Total Capital Investment (rounded)	\$483,990	\$889,800

Table 3.10: Annual Costs for Thermal and Catalytic Incinerators

Example Problem

Cost Item	Suggested Pactor	Vzit Cost	Theomal	Plaid-Bad Catalytic
Direct Anneal Costs DC		٠.		
Operating Labor	•			
Operator	0.5 k/skift	\$12.96/k	6,630	6,430
Supervisor	15% of operator		972	972
Operating meterials		•		
Maintenance				
Labor	0.5 h/skift	\$14.26/k	7,136	7,130
Naterial .	100% of maint. labor	-	7,130	7,130
Catalyst replacement	100% of catalyst replaced on 2 yr	8650/ft ³ for metal exide	•	14,500
U tili ties				
Natural Gas		和30/社計	254,500	63,400
Electricity	_	\$0.050/kWh	35,000	42,300
Total DC	•	,	\$321,200	\$142,000
Indirect Annual Costs, EC		· ·	•	
Overbead	60% of stan of		13,000	15,000
	operating supr.			,
	& maint. labor &	•	•	
•	maint. materials!	٠.		
Administrative charges	2% TCI	.—	1,500	17,800
Property taxes	1% TCI	-	4,830	8,900
Insurance	1% TCI	-	4,830	8,900
Capital recovery	CRF [TCI - LOS (Cat. Cost)]	•	78,906	142,200
Total IC	The lost conti		\$118,900	\$190,800
Total Azonal Cost (rounded)	•		\$432,000	\$352,900

^{*1965} dellars

A.seemes 2,000 1/77.

[&]quot;The capital recovery cost factor, CRF, is a function of the catalyst or equipment life (typically, 2 and 10 years, respectively) and the opportunity cost of the capital (i.e., interest rate). For example, for a 10 year equipment life and a 10% interest rate, CRF or 0.1438.

ATTACHMENT 2

DUCT WORK REQUIREMENTS

Duct Diameters (Inches)	Linear F eet	No. of Elbows
18	65	6
24	15	3
30	55	
36	20	
42	40	1
48	150	3
60	65	1

Other Requirements

- 1. 304 stainless steel needed for potentially corrosive conditions (flue gas is near moisture saturation level and ammonia vapors are present).
- 2. Insulation required to minimize condensation.

Quotation from Local Contractor

Chicago Blow Pipe estimate: \$195,000 (Installed duct work excluding control dampers)

ATTACHMENT 3 RECUPERATIVE THERMAL INCINERATOR 70% HEAT RECOVERY COST PER TON VOC REMOVED

Purchased	Equipm	ent Costs	(PEC)

Incinerator Quote (Somerset Technologies)	\$ 900,000(1)
Incinerator Quote (Salem-Englehard)	1,000,000 ⁽¹⁾
Duct Work Quote (Chicago Blow Pipe)	<u>195,000</u>
Installed Cost Excluding Control Dampers	\$ 1,095,000
From OAQPS Cost Control Manual =	1.16 (PEC)
PEC - \$1,095,000 / 1.16 =	\$ 944,000

(1) Installed cost excluding supports, electrical, and piping

Total Capital Investment (TCI)

From OAQPS Cost Manual

TCI = 1.61 (PEC) + Site Preparation

TCI = 1.61 (944,000) = \$1,520,000

Capital Cost Recovery Factor (10% Discount Rate, 10-Year Life) = 0.1627

Capital Recovery - $$1,520,000 \times 0.1627 = $247,300/year$

Annual Operating Costs

Operating Labor = $(0.5 \text{ hr/8-hr shift}) \times (\$12.90/\text{hr}) \times (4.128 \text{ hr/yr}) =$	\$ 3,300
Maintenance Labor = $(0.5 \text{ hr/8-hr shift}) \times (\$14.30/\text{hr}) \times (4.128 \text{ hr/yr}) =$	3,700
Maintenance Materials = 100% Maintenance Labor =	3,700
Administrative Charges, Property Tax, Insurance (5% TCI) =	76,000
Natural Gas = (201,034 MMBTU/yr) x (\$2.80/MMBTU) =	562,900
Electricity = (1,027,900 KW-hr/yr) x (\$0.085/KW-hr) =	<u>87,400</u>
ANNUAL O & M	\$ 737,000

Total Annual Cost

Annual O & M + Capital Recovery:

\$737,000 + \$247,300 = \$984,300

Cost Per Ton VOC Removed:

\$874.300/68.1 tons = \$14.450/ton

ATTACHMENT 4 SUPPLEMENTAL FUEL AND ELECTRICITY REQUIREMENTS

Mass Flow

70,000 CFM Air at 70° F and 90% Humidity

Moisture Content = 2.12% or 0.0139 lbs water/lb dry air

Dry Air Flow = 68,520 DCFM

Dry Air Density at 70° F = 0.0734 lbs/ft3

Dry Air Mass Flow = $68,520 \times 0.0734 \times 60 = 301,760$ lbs/hr

Water Vapor Mass Flow = $301,760 \times 0.0139 = 4,190 \text{ lbs/hr}$

Enthalpies

Dry Air at 70° F = 126.7 BTU/lb

Dry Air at 1,600° F = 521.4 BTU/Ib

Water Vapor at 70° F = -3.1 BTU/Ib

Water Vapor at 1,600° F = 766.8 BTU/lb

Heat Value of VOC

VOC Emission Rate: 69.5 tons/yr over 4,128 hrs/yr = 33.7 lbs/hr

Heat Value = $(15,000 \text{ BTU/lb}) \times (33.7 \text{ lbs/hr}) = 0.5 \text{ MMBTU/hr}$

Total Required Heat Input

Dry Air = 301,760 (521.4 - 126.7) =	+119.1 MMBTU/ hr
Water Vapor = 4,190 (766.8 - (-3.1)) =	+3.2 MMBTU/hr
Heat Derived From VOC =	<u>-0.5 MMBTU/hr</u>
TOTAL +	121.8 MMBTU/hr

Supplemental Fuel Usage

Energy Loss (10% Total Heat) =	12.2 MMBTU/hr
Sensible Heat Los (70% Heat Recovery) =	36.5 MMBTU/hr
Supplemental Heat Input =	48.7 MMBTU/hr
Supplemental Natural Gas Flow =	812 SCFM
Annual Heat Input from Supplemental Fuel =	201,034 MMBTU/yr

Electricity

Incinerator Fan Power Requirements = 300 BHP

300 BHP/90% Efficiency = 333 HP

 $(333 \text{ HP}) \times (0.746 \text{ KW/HP}) = 249 \text{ KW}$

 $(240 \text{ KW}) \times (4,128 \text{ hrs/yr}) = 1,027,9000 \text{ KW-Hr/yr}$

CEMENTABLE LEATHERS FINISH A

				PARTS/	GAL (2.62 GAL≃			PARTS/	GAL (2.83 GAL=			PARTS/	GAL (2 GAL≃			PARTS/	GAL {8 GAL≃			PARTS/	GAL (8 GAL=				
	LB/GAL DENSITY	% VOCS	% HAPS	GAL1ST COAT			LBS HAPS	GAL 2ND COAT		LBS VOCS		GAL 3RD COAT		LBS VOCS		GAL 4TH COAT			LBS HAPS	GAL 5TH COAT	200 SIDES)			TOTAL VOCS	TOTA HAPS
	0	0.00%	0.00%	10.00	1.52	0.00	0.00	10.00	1.64	0.00	0.00							•						0.00	
	0	0.00%	0.00%	4.00	0.61	0.00	0.00	4.00	0.66	0.00	0.00											Ī.,		0.00	0.0
\Box	8.58	74.00%	43.60%	1.00	0.15	0,96	0.57	1.00	0.16	1.04	0.61													2.01	1.1
	8.58	72.50%	32.50%	0.25	0.04	0.24	0.11	0.25	0.04	0.26	0.11													0.49	
Т	0	0.00%	0.00%	0.50	0.08	0.00	0.00	0.50	0.08	0.00	0.00	0.50	0.10	0.00	0.00									0.00	0.0
Т	8.1	42.00%	31.43%	1.50	0.23	0.78	0.58	1.50	0.25	0.84	0.63					3,50	2.00	6.80	5.09	3.50	2.00	6.80	5.09	15.22	
	0_	0.00%	0.00%									6.50	1.33	0.00	0.00									0.00	
Т	8.33	0.73%	0.00%									0.50	0.10	0.01	0.00									0.01	0.0
T	0	0.00%	0.00%									1.00	0.21	0.00	0.00									0.00	
	0	0.00%	0.00%									1.00	0.21	0.00	0.00									0.00	0,0
	8.25	0.80%	0.00%									0.25	0.05	0.00	0.00									0.00	
	7.6	60.00%	15,00%													10.50	6.00	27.36	6.84	10.50	6.00	27.36	6.84	54.72	13.6
\perp		L																							
	(200 SIDE		L	17.25	2.62	1.98	1.25	17.25	2.83	2.13	1.35	9.75	2.00	0.01	0.00	14.00	8.00	34.16	11.93	14.00	8,00	34.16	11.93	72.45	26.4

200X19.429=3885.8 FT (128 OZ=1GAL)
Components that do not meet the 3.5 lbs/gal rule

STUFFING PROCESS LIMITING FACTOR

			1
ER 1000 SQ FT	LBS	18.58	6.79
500 SIDES/WK/YR	LBS	9,056	3,309
	TONS	4.5279	1.6545
000 SIDES/WK/YR	LBS	90,559	33,090
	TONS	45.279	16.545

ADDITIONAL PERFORMANCE LEATHERS SAMPLE FINISH B

		T	T	1	GAL	_			GAL				GÁL				GAL				GAL			1				
			1	PARTS/				PARTS/	(4 GAL=			PARTS/	(10 GAL=			PARTS/	(8 GAL=	1		PARTS/	(8 GAL=		ŀ				1 1	i
	LB/GAL	%	%	GAL1ST	200	LBS	LBS	GAL 2ND		LBS	LBS	GAL 3RD			LBS	GAL 4TH		LBS	LBS	GAL 5TH		LBS	LBS	6ТН	LBS	LBS	TOTAL	TOTAL
	DENSITY	vocs	HAPS	COAT	SIDES)	vocs				vocs					HAPS			vocs			SIDES)					HAPS	VOCS	HAPS
	8.3334	0.00%	0.00%	3.50	3.15	0.00	0.00	3.50	3.15	0.00	0.00	2.00	4.00	0.00		1.50	2.97										0.00	0.00
	SOLID	0.00%	0.00%	0.25	0.23	0.00	0.00	0.25	0.23	0.00	0.00		· · · · · ·					1									0.00	0.00
	8.58	74.00%	43.60%	0.25	0.23	1.43	0.84	0.25	0.23	1.43	0.84							T									2.88	1.69
	8.58	74.00%	38.20%	0.03	0.03	0.18	0.09	0.03	0.03	0.18	0.09					0.00	0.01	1								L	0.36	0.18
	8.11	93.00%	50.30%	0.03	0.03	0.21	0.11	0.03	0.03	0.21	0.11					0.00	0.01										0.42	0.23
	7.45	0.00%	0.00%	0.25	0.23	0.00	0.00	0.25	0.23	0.00	0.00															L	0.00	0.00
	8.1	42.00%	31.43%	0.13	0.11	0.38	0.29	0.13	0.11	0.38	0.29									1.00	2.00	6.80	5.09				7.57	5.67
	0	0.00%	0.00%									0.50	1.00	0.00	0.00								L				0.00	0.00
	0	0.00%	0.00%									1.00	2.00	0.00								1					0.00	0.00
	0	0.00%	0.00%						<u> </u>			1.50	3.00	0.00	0.00		<u></u>	1									0.00	0.00
	8.5	8.56%	5.00%													2.00	3.96					<u> </u>	<u> </u>				0.00	0.00
	0	0.00%	0.00%			1										0.13	0.25	 				İ	ļ			<u> </u>	0.00	0,00
	0	0.00%	0.00%							L		ļ				0.13	0.25	<u> </u>				!					0.00	0.00
	0	0.00%	0.00%			ļ									ļ	0.25	0.49									 	0.00	0.00
	0	0.00%	0.00%			 	ļ					ļ				0.03	0.06						ļ			ļ	0.00	0.00
	0	0.00%	0.00%			ļ	L									0.00	0.01	<u> </u>						<u> </u>		ļ	0.00	0.00
	7.6	60.00%	15.00%			! -			<u> </u>			<u> </u>	 							3.00	6.00	27.36	6.84			1 000	27.36	
	0	0.00%	0.00%			+	 		ļ	 			ļ	<u> </u>	L		<u> </u>	 -		ļ			 	5.00	0.00	0.00	0.00	0.00
OTA	L (200 S)O	L	ļ	4.44	4.00	2.24	1.34	444	400	234	1 24	E 00	40.00	000	0.00	4.04	B.00	0.00	0.00	4.00	8.00	34.16	11.93	5,00	0.00	0.00	38.57	14.61
	19.429=388		L	28 OZ=1GA		1 2.21	1.34	4.44	4.00	2.21	1.34	5.00	10.00	0.00	1 0.00	4.04	1 0.00	0.00	0,00	7.00	6.00	1 34.10	11.93	1	0.00	1 0.00	1 00.01	,4.0

200X19.429=3885.8 FT (128 OZ=1 Components that do not meet the 3.5 lbs/gal rule

VACUUM DRYER LIMITING FACTOR

PER 1000 SQ FT	LBS	9.89	3.75
500 SIDES/WK/YR	LBS	4,822	1,826
	TONS	2.4109	0.9129
2000 SIDES/WK/YR	LBS	19,287	7,303
	TONS	9.6437	3.6515

HAND SEWN LEATHERS

	- 1			GAL			,	GAL	l		1	GAL				GAL				GAL	1			i
i I			PARTS/	(8 GAL≖			PARTS/	(1.5 GAL=	l	Į.	PARTS/	(1.5 GAL=			PARTS/	(1 GAL=			PARTS/	(1 GAL=	1 1	1		l
LB/GAL	%	%	GAL1ST	1000	LBS	LBS	GAL 3RD	1000	LBŞ	LBS	GAL 4TH	1000	LBS	LBS	GAL 5TH	1000	LBS	LBS	GAL 8TH	1000	LBS	LBS	TOTAL	TOTAL
DENSITY	VOCS	HAPS	COAT	SQ FT)	vocs	HAPS	COAT	SQ FT)	VOCS	HAPS	COAT	SQ FT)	vocs	HAPS	COAT	SQ FT)	vocs	HAPS	COAT	SQ FT)	vocs	HAPS	vocs	HAP\$
8.3334	0.00%	0.00%	0.54	4.32	0.00	0.00	0.22	0.33	0.00	0.00	0.22	0.33	0.00	0.00	0.25	0.25	0,00	0.00	0.30	0.30	0.00	0.00	0.00	0.00
7.5	100.00%	100.00%	0.11	0.88	6.60	6,60	0.04	0.06	0,45	0.45	0.04	0.06	0.45	0.45									7.50	7.50
8.3334	0.00%	0.00%	0.28	2.24	0.00	0.00	0.22	0.33	0.00	0.00	0.22	0.33	0.00	0.00									0.00	0.00
8.33	0.00%	0.00%	0.07	0.56	0.00	0.00	0.03	0.05	0.00	0.00	0.03	0.05	0.00	0.00									0.00	
8.36	0.00%	0.00%					0.04	0.06	0.00	0.00	0.04	0.06	0.00	0.00					0.01	0.01	0.00	0.00	0.00	0.00
8.6667	8.00%	8.00%				-	0.08	0.12	0.08	0.08	0.08	0.12	0.08	0.08									0.17	0.17
8.3334	0.00%	0.00%					0.01	0.02	0.00	0.00	0.01	0.02	0.00	0.00									0.00	0.00
8.3334	0.00%	0.00%					0.26	0.39	0.00	0.00	0.26	0.39	0.00	0.00									0.00	0.00
8.3334	0.00%	0.00%					0.08	0.12	0.00	0.00	0.08	0.12	0.00	0.00									0.00	0.00
10.52	0.00%	0.00%					0.02	0.03	0,00	0.00	0.02	0.03	0.00	0.00									0.00	0.00
8.56	8.56%	5.00%													0.75	0.75	0.55	0.32					0.55	0.32
7.6	60.00%	15.00%							i			1							0.67	0.67	3.06	0.76	3.06	0.76
8.4	0.06%	0.00%									1	1							0.01	0.01	0.00	0.00	0.00	0.00
8.4167	8.00%	0.00%							1										0.01	0.01	0.01	0.00	0.01	0.00
										1														
ER 1000 SQ FT			1.00	8.00	6.60	6.60	1.00	1.50	0.53	0.53	1.00	1.50	0.53	0.53	1.00	1.00	0.55	0.32	1.00	1.00	3.06	0.76	11.28	8.75

Components that do not meet the 3.5 lbs/gai rule

BUFFING PROCESS LIMITING FACTOR

PER 1000 SQ FT	LBS	11.28	8.75
500 SIDES/WK/YR	LBS	5 4R2	4,253
OUU SIDES/WICH	TONS	2.741	2.1263
1000 SIDES/WK/YR	LBS	10,951	8,497
	TONS	5.4754	4.2487

ADJUSTMENTS MADE TO DYE MIX

CURRENT DYE MIX	PARTS	PERCENT	DENSITY	%SOLIDS	%VOM	%WATER	DENSITY	% WATER OF TOTAL	%SOLIDS OF TOTAL	%VOM OF TOTAL]
WATER AS DILUTOR	10.00	58%	8.33	0%	0%	100%	4.83	57.97%	0.00%	0.00%	
DYE	4.00	23%	8.33	3%	0%	97%	1.93	22.49%	0.70%	0.00%	(8.31) (8.99) = 0.75 lbs/gal VOM with water
DYE	1.00	6%	8.58	25%	74%	1%	0.50	0.06%	1.45%	4.29%	
DYE	0.25	1%	8.58	26.5%	72.5%	1%	0.12	0.01%	0.38%	1.05%	1
PENETRATOR	0.50	3%	7.6	62%	0%	38%	0.22	1.11%	1.79%	0.00%	(8.99) (8.31) = 5.61 lbs/gal VOM w/o water
PENETRATOR	1.50	9%	8.1	0%	42%	58%	0.70	5.04%	0.00%		100 - 86.69
	17.26	100%					8.31	86.69%	4.31%	8.99%]

PRE-RACT DYE MIX	PARTS	PERCENT	DENSITY	%SOLIDS	%VOM	%WATER	DENSITY	% WATER OF TOTAL	%SOLIDS OF TOTAL	%VOM OF TOTAL].
DYE	1	33%	8.2500	24%	75%	1%	2.75	0.33%	8.00%	25.00%	
DILUTOR/PENETRATOR	2	67%	6.8300				4.55		0.00%	66.67%]
	3	100%					7.30	0.33%	8.00%	91.67%	(91.67) (7.3) = 6.71 lbs/gal VOM w/o water
Do not meet the 3.5 lb/gal	rule										10033

CEMENTABLE LEATHERS FINISH A

LB/GAL DENSIT	YVO		% HAPS	PARTS/ GAL1ST COAT			LBS HAPS	PARTS/ GAL 2ND COAT	GAL (2.83 GAL= 200 SIDES)	LBS VOCS	LBS	PARTS/ GAL 3RD COAT		LBS VOCS		PARTS/ GAL 4TH COAT		LBS VOCS	LBS HAPS	PARTS/ GAL 5TH COAT	GAL (8 GAL= 200 SIDES)			TOTAL VOCS	TOT.
0		0.00%	0.00%	10.00	1.52	0.00	0.00	10.00	1.64	0.00	0.00													0.00	0.
0		0.00%	0,00%	4.00	0.61	0,00		4.00	0.66	0.00	0.00													0.00	0.0
8.58		4.00%	43.60%	1.00	0.15	0.96	0.57	1.00	0.16	1.04	0.61								Ĩ., I					2.01	
8.58		2.50%	32,50%	0.25	0.04	0.24	0.11	0.25	0.04	0.26	0.11													0.49	0.2
0		0.00%	0.00%	0.50	0.08	0.00	0.00	0.50	0.08	0.00	0.00	0.50	0.10	0.00	0.00									0.00	
8.1		2.00%	31.43%	1.50	0.23	0.78	0.58	1.50	0.25	0.84	0.63					3.50	2.00	6.80	5.09	3.50	2.00	6.80	5.09	15.22	11.3
0		0.00%	0.00%									6.50	1.33	0.00	0.00									0.00	0.0
8.33		0.73%	0.00%									0.50	0.10	0.01	0.00									0.01	0.0
0		0.00%	0.00%									1.00	0.21	0.00	0.00									0.00	
0		0.00%	0.00%									1.00	0.21	0.00	0.00									0.00	Q.C
8.25		0.80%	0.00%							ПП		0.25	0.05	0.00	0.00									0.00	0.0
7.6	61	0.00%	15.00%													10.50	6.00	27.36	6.84	10.50	6.00	27.36	6.84	54.72	13.6
L (200 SI				17.25	2.62	1.98	1.25	17.25	2.83	2.13	1.35	9.75	2.00	0.01	0.00	14.00	8.00	34.16	11.93	14.00	8.00	34.16	11.93	72.45	26.4

[200X19.429=3885.8 FT (128 OZ=1GAL) Components that do not meet the 3.5 lbs/gal rule

STUFFING PROCESS LIMITING FACTOR

PER 1000 SQ FT	LBS	18.58	6.79
500 SIDES/WK/YR	LBS	9,056	3,309
	TONS	4.5279	1.6545
5000 SIDES/WK/YR	LBS	90,559	33,090
	TONS	45.279	16.545

ADDITIONAL PERFORMANCE LEATHERS SAMPLE

FINIS	H B																											
ĺ				PARTS/	GAL (4 GAL=			PARTS/	GAL (4 GAL=			PARTS/	GAL (10 GAL=			PARTS/	GAL (8 GAL=			PARTS/	GAL (8 GAL=							
l	LB/GAL	%	%	GAL1ST	200			GAL 2ND	200			GAL 3RD	200	LBS		GAL 4TH	200	LBS	LBS	GAL 5TH	200		LBS				TOTAL	
	DENSITY		HAPS	COAT		vocs				vocs						COAT	SIDES)	vocs	HAPS	COAT	SIDES)	vocs	HAPS	COAT	vocs	HAPS	vocs	
<u> </u>	8.3334	0.00%	0.00%	3.50	3.15	0.00		3.50	3.15	0.00	0.00		4.00	0.00		1.50	2.97	<u> </u>							L		0.00	0.00
	SOLID	0.00%			0.23	0.00		0.25	0.23	0.00	0.00		<u> </u>	<u> </u>	<u></u>									l			0.00	0.00
	8.58	74.00%		0.25	0.23	1.43		0.25	0.23	1.43																	2.86	1.69
	8.58	74.00%		0.03	0.03	0.18	0.09	0.03	0.03	0.18	0.09					0.00	0.01	L									0.38	0.18
_	8.11	93.00%			0.03	0.21	0.11	0.03	0.03	0.21	0,11					0.00	0.01	L									0.42	0.23
	7.45	0.00%		0.25	0.23	0.00		0.25	0.23	0.00	0.00																0.00	0.00
	8.1	42.00%			0.11	0.38	0.29	0.13	0.11	0.38	0.29									1.00	2.00	6.80	5.09				7.57	5.67
	0	0.00%										0.50	1.00	0.00	0.00												0.00	0.00
	0	0.00%										1.00	2.00	0.00	0.00												0.00	0.00
	0	0.00%										1.50	3.00	0.00	0.00												0.00	0.00
	8.5	8.56%				<u> </u>										2.00	3.96										0.00	0.00
	0	0.00%	0.00%													0,13	0.25							l			0.00	0,00
	0	0.00%														0.13	0,25										0.00	0.00
	0	0.00%														0.25	0.49	I						L			0.00	
	0	0.00%			L											0.03	0.08							L			0.00	
	0	0.00%	0.00%													0.00	0.01										0,00	0.00
	7.6	60.00%																		3.00	6.00	27.36	6.84			<u></u>	27.36	
	0	0.00%	0.00%																					5.00	0.00	0.00	0.00	0.00
	<u> </u>	<u></u>			L	<u> </u>												<u> </u>						<u> </u>	L	L		ليبيا
	AL (200 SIC		l	4.44	4.00	2.21	1.34	4.44	4.00	2.21	1.34	5.00	10.00	0.00	0.00	4.04	8.00	0.00	0.00	4.00	8.00	34,16	11.93	5.00	0.00	0.00	38.57	14.61
200X	19.429=38	85.8 FT	(1	28 OZ=1G/	AL)																							

Components that do not meet the 3.5 lbs/gal rule

 PER 1000 SQ FT
 LBS
 9.89
 3.75

 500 SIDES/WK/YR
 LBS
 4,822
 1,826

 TONS
 2,4108
 0.9129

 2000 SIDES/WK/YR
 LBS
 19,287
 7,303

 TONS
 9,8437
 3,6615

VACUUM DRYER LIMITING FACTOR

HAND SEWN LEATHERS

LIMIS	on C																								
	, ,				GAL				GAL			1	GAL.	,			GAL				GAL		1		i
	1 1		l	PARTS/	(8 GAL=				(1.5 GAL=		l	PARTS/	(1.5 GAL=		!	PARTS/	(1 GAL=	l		PARTS/	(1 GAL=		l i		<u> </u>
	LB/GAL	%	%	GAL1ST		1	LBS	GAL 3RD		LBS	LBS	GAL 4TH	1000	LBS	LBS	GAL 5TH				GAL 8TH				TOTAL	i
	DENSITY	vocs	HAPS	COAT		vocs	HAPS	COAT	SQ FT)	vocs	HAPS	COAT	SQ FT)	vocs	HAPS	COAT	SQ FT)	vocs	HAPS	COAT	SQ FT)	vocs	HAPS	vocs	HAPS
	8.3334	0.00%	0.00%	0.54	4.32	0.00	0.00	0.22	0.33	0.00	0.00	0,22	0.33	0.00	0.00	0.25	0.25	0,00	0.00	0.30	0.30	0.00	0.00		
	7.5	100.00%	100.00%	0.11	0.88	6.60	6.60	0.04	0.06	0.45		0.04	0.06	0.45	0.45									7.50	
	8.3334	0.00%	0.00%	0.28	2.24	0.00	0.00	0.22	0.33	0.00		0.22	0.33	0.00	0.00	<u> </u>								0.00	
	8.33	0.00%	0.00%	0.07	0.56	0.00	0.00	0.03	0.05	0.00		0.03	0.05	0.00	0.00		<u></u>	L						0.00	
	8.36	0.00%	0.00%					0.04	0.06	0.00	0.00	0.04	0.06	0.00	0.00	l	l			0.01	0.01	0.00	0.00		
	8.6667	8.00%	8.00%					0.08	0.12	0.08	0.08		0.12	0.08	0.08									0.17	0.17
	8.3334	0.00%	0.00%					0.01	0.02	0.00			0.02	0.00	0.00									0.00	0.00
	8.3334	0.00%	0.00%					0.26	0.39	0.00			0.39	0.00	0.00		<u> </u>							0.00	0.00
	8.3334	0.00%	0.00%					0.08	0.12	0.00			0.12	0.00	0,00									0.00	0.00
	10.52	0.00%	0.00%					0.02	0.03	0.00	0,00	0.02	0.03	0.00	0.00			<u> </u>						0.00	
	8.56	8.56%	5.00%	l						<u></u>	<u> </u>			L		0.75	0.75	0.55	0.32					0.55	0.32
	7.6	60.00%	15.00%												<u> </u>					0.67	0.67	3.06		3.06	
	8.4	0.06%	0.00%	L						<u> </u>						L				0.01	0.01	0.00			
	8.4167	8.00%	0.00%								L									0.01	0.01	0.01	0.00	0.01	0.00
																	l								
ER	1000 SQ FT			1.00	8.00	6.60	6.60	1.00	1.50	0.53	0.53	1.00	1.50	0.53	0.53	1.00	1.00	0.55	0.32	1,00	1.00	3.06	0.76	11.28	8.75
'omi	nonente that	do not mont	the 3.5 lbc/	not rulo																					

BUFFING PROCESS LIMITING FACTOR

PER 1000 SQ FT	LBS	11.28	8.75
500 SIDES/WK/YR	LBS	5,482	4,253
**************************************	TONS	2.741	2.1263
1000 SIDES/WK/YR	LBS	10,951	8,497
	TONS	5.4754	4.2487

ADJUSTMENTS MADE TO DYE MIX

CURRENT DYE MIX	PARTS	PERCENT	DENSITY	%SOLIDS	%VOM	%WATER	DENSITY	% WATER OF TOTAL	%SOLIDS OF TOTAL	%VOM OF TOTAL	
WATER AS DILUTOR	10.00	58%	8.33	0%	0%	100%	4.83	57.97%	0.00%	0.00%	
DYE	4.00	23%	8.33	3%	0%	97%	1.93	22.49%	0.70%	0.00%	(8.31) (8.99) = 0.75 lbs/gal VOM with water
DYE	1.00	6%	8.58	25%	74%	1%	0.50	0.06%	1.45%	4.29%	,
DYE	0.25	1%	8.58	26.5%	72.5%	1%	0.12	0.01%	0.38%	1.05%	
PENETRATOR	0.50	3%	7.6	62%	0%	38%	0.22	1.11%	1.79%	0.00%	(8.99) (8.31) = 5.61 lbs/gal VOM w/o water
PENETRATOR	1.50	9%	8.1	0%	42%	58%	0.70	5.04%	0.00%	3.65%	100 - 86.69
	17.25	100%					8.31	86.69%	4.31%	8.99%	

PRE-RACT DYE MIX	PARTS	PERCENT	DENSITY	%SOLIDS	%VOM	%WATER	DENSITY	% WATER OF TOTAL	%SOLIDS OF TOTAL	%VOM OF TOTAL	
DYE	1	33%	8.2500	24%	75%	1%	2.75	0.33%	8.00%	25.00%	
DILUTOR/PENETRATOR	2	67%						0.00%	0.00%	66.67%	
	3	100%					7.30	0.33%	8.00%	91.67%	(91.67) (7.3) = 6.71 lbs/gal VOM w/o water
Do not meet the 3.5 lb/ga	rule										100 - ,33

ATTACHMENT 10

PRIME TANNING COMPANY)	DEPARTMENTAL
YORK COUNTY)	FINDINGS OF FACT AND ORDER
BERWICK, MAINE)	PART 70 AIR EMISSION LICENSE
A-376-70-A-I)	

After review of the Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction:

FACILITY	Prime Tanning Company (Prime)
LICENSE NUMBER	A-376-70-A-1
LICENSE TYPE	Part 70 License
SIC CODES	3111-Leather Tanneries
NATURE OF BUSINESS	Leather Tanning and Finishing
FACILITY LOCATION	Sullivan Street, Berwick
DATE OF LICENSE ISSUANCE	April 26, 2000
LICENSE EXPIRATION DATE	April 26, 2005

B. Emission Equipment:

The following sources are addressed by this Part 70 License:

Fuel Burning Equipment

EQUIPMENT ID	UNIT CAPACITY	UNIT TYPE
Boiler #1	33.5 MMBtu/hr	Cleaver Brooks Boiler
Boiler #3	22.5 MMBtu/hr	Ames Boiler
Boiler #4	22.5 MMBtu/hr	Ames Boiler
Boiler #5	15.1 MMBtu/hr	Propanc-fired water heater

PRIME TANNING COMPANY)
YORK COUNTY)
BERWICK, MAINE)
A-376-70-A-I	2

DEPARTMENTAL FINDINGS OF FACT AND ORDER PART 70 AIR EMISSION LICENSE

Process Equipment

Operation	Line No.	Stations Per Line	Pollution Ctrl Equipment	Pollutant controlled & Efficiency
Tandem	1	Roller coater, dryer, spray booth, dryer, spray booth, dryer	Collection pads	PM, 85%
Silicone *	2	Flow coater, tunnel dryer	none	
Dual up	3	Spray booth, dryer, spray booth, dryer	Collection pads	PM, 85%
Dual down	4	Spray booth, dryer, spray booth, dryer	Collection pads	PM, 85%
Dubois I	5	Roller coater	none	
Rotary I	6	Spray booth, dryer	Collection pads	PM, 85%
Lower Season	7	Roller coater, dryer	none	
Lime silo			Baghouse	PM, 95%
Buffing			Baghouses	PM 95%
Tumbling **			Baghouse	PM 95%

- Prime operates the silicone line strictly for waterproofing leather, which has not met waterproof specifications by alternate
 methods. Prime has the capacity to process approximately 10,000 sides/day of both waterproof and non waterproof
 leathers.
- ** There are eight tumblers that vent through either a baghouse or discharge inside the facility.

Prime has additional insignificant activities that do not need to be listed in the emission equipment tables above. These insignificant activities can be found in Section C of Prime Tanning's Title V license application submitted August 1996.

In addition, Prime has had in recent years the need to move process equipment due to better locations found on-site. Moves of this equipment within the facility will be allowed under this license. During these moves repairs and/or replacement will be allowed to the non-emissions portions of the equipment and to the emissions parts to the extent that these changes do not have the potential to increase emissions.

C. Application Classification:

The application for Prime Tanning does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be an Initial Part 70 License issued under Chapter 140 for a Part 70 source.

D. General Facility Requirements:

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Prime is subject to the State and Federal regulations listed below, in addition to the regulations listed for specific units as described in Section II of this license.

CITATION	REQUIREMENT SUMMARY
Chapter 101	Visible Emissions Regulation
Chapter 102	Open Burning regulation
Chapter 103	Fuel Burning Equipment Particulate Emission Standard
Chapter 105	General Process Source Particulate Emission Standard
Chapter 106	Low Sulfur Fuel
Chapter 109	Emergency Episode Regulation
Chapter 110	Ambient Air Quality Standard
Chapter 115	Emission License Regulations
Chapter 116	Prohibited Dispersion Techniques
Chapter 130	Solvent Degreasers
Chapter 134	Reasonable Available Control Technology for VOC
Chapter 137	Emission Statements
Chapter 140	Part 70 Air Emission License

II. EMISSION UNIT DESCRIPTION

A. Process Description

Prime Tanning Company (Prime) of Berwick, Maine owns and operates a leatherfinishing tannery. The facility has the average capacity to process 10,000 sides of blue stock leather every three shifts, which is equivalent to approximately 73,000,000 square feet of product processed per year. No chrome processing of hides is done at Prime's Berwick, Maine facility. On-site combustion sources include three #6 fuel oil-fired boilers and a propane-fired water heater. On-site process sources include tanning mills where coloring is done by tumbling leather in large wooden drums with water, treatment, and coloring agents. The leather is then dried using one of three drying processes and then moves into the "finishing" side of the plant. The finish-mechanical operation involves embossing, sanding, or plating processes, which alter the finish appearance, usually, the grain surface. The finishapplication operations involve spraying or directly applying either a film forming material or a coloring stain for color and/or physical properties. These operations generate VOC emissions and are therefore the focus of potential reduction. The amount of VOC depends on the formulation of the finish. Different products have widely varying VOC contents. Water based formulations are more widely available for film forming applications than color stain. Prime also makes a large percentage

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(currently 30-40%) of waterproof product, which water-based formulations do not penetrate.

The following defines the types of coating applications and methods used at Prime:

•	Rotary Spray Coating:	Application of coatings where spray guns are mounted
		vertically on a unit that revolves continuously above leather as
	•	finish is sprayed downward.
•	Flow Coating:	A method of finishing that applies coatings by pouring
		a thin film of coating material onto the leather surface
		from an overhead reservoir.
•	Roll Coating:	A method of finishing where the finish is transferred
		from a rubber-coated or knurled steel roll to the leather surface.
•	Seasoning:	A method of finishing where coating is pumped into a
		trough and is picked up by a rotating fluted roll. A rotary
		brush transfers the finish from this roll onto the leather
	•	where mechanized swabs work the coating into the grain.
•	Manual:	Coatings are manually applied, i.e., using hand-held pads

Specific Unit Requirements:

B. Boilers #1, #3, #4, and #5

The following table includes the requirements associated with Prime Tanning's fuel burning equipment along with the corresponding regulatory citation:

and/or hand spray HVLP guns.

Note: The definition of "streamlining" means that the most stringent of two or more applicable requirements supercedes other less stringent requirements.

Regulatory Citation	Requirements (Emission limits, operational standards, etc.)			
GENERAL STATE OF MAI	NE REQUIREMENTS			
Chapter 101 (A) (1)	Prime Tanning shall not emit or cause to be emitted any visible air contaminants from Boilers #1, #3, #4, and #5 that exceeds an opacity of 30% for more than 15 minutes in any continuous 3 hour period. (BPT opacity limits differ for Boiler #5 and the BPT opacity averaging periods for all the boilers also differ. Chapter 101 is streamlined into Conditions #26 and #27.)			

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Regulatory	Requirements						
Citation		(Emission limits, operational standards, etc.)					
Chapter 103	Particulate Limit:						
_	0.20 lb/ MMBtu (Boilers #1, #3, and #4) 0.12 lb/MMBtu (Boiler #5). (The						
	BPT particular	e matter limit of 0.0	01 lb/MMBtu is more	stringent than Chapter			
	103, therefore	103, therefore Chapter 103's applicability for Boiler #5 is streamlined into					
	Condition #25	Condition #25)					
Chapter 106	Fuel limite						
•	streamline	streamlined into Condition #25, therefore, SO2 emissions results in a BPT					
	requireme	requirement of 1.0 % sulfur by weight.)					
	Prime Tan	ning must maintain	certification records of	of the fuel analysis provid			
	by the sup	plier.					
	• Copies of	all records and repo	orts required by this rep	gulation must be kept at the			
				These records shall be			
			ess hours and copies p				
			tative upon request.				
Chapter 138				Ox emissions from the			
_	facility to 80.3	tons per year. The	refore, Prime Tanning	is not considered a major			
				Based on these operation			
	restrictions, thi	s condition is consi	dered federally enforce	eable in order to avoid			
	NOx RACT.						
Amendment #4 A-376-72-D-A Amendment #4	content, and sh	Prime Tanning shall maintain sufficient records to document fuel use and sulfur content, and shall keep the records on file for a minimum of six years. Boilers #1, #3, and #4 are restricted to 2,000,000 gallons of No. 6 fuel oil with a					
A-376-72-D-A							
Condition (13)		sulfur content not to exceed 1% by weight on a twelve month rolling total.					
Amendment #4		(Boiler #1) (Boiler #3 and #4) (Boiler #5)					
A-376-72-D-A		•	,	,			
Condition (14)	PM:	0.20 lb/MMBtu	0.20 lb/MMBtu	0.01 lb/MMBtu			
	1	7.20 lb/hr	4.5 lb/hr	0.15 lb/hr			
	PM10:						
		7.20 lb/hr	4.5 lb/hr	0.15 lb/hr			
	SO2:						
4		37.69 lb/hr	23.6 lb/hr	0.01 lb/hr			
	NOx:			•			
		16.20 lb/hr	10.1 lb/hr	3.05 lb/hr			
	CO:			***			
		1.20 lb/hr 0.8 lb/hr 0.51 lb/hr					
	VOC:	VOC:					
	 	0.07 lb/hr 0.04 lb/hr 0.08 lb/hr					
Chapter 140; BPT	l l	Visible emissions from Prime's main stack shall not exceed an opacity of 30					
opacity requirement		percent on a six (6) minute block average basis, except for no more than two (2) six					
	(6) minute block averages in a 3-hour period. This condition streamlines Chapter 101's opacity requirement for common stacks.						
	101's opacity re	equirement for com	mon stacks.				

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Emission Unit	Requirements (Recordkeeping/Reporting)
(Boilers #1,#3,#4,#5)	 Prime Tanning must maintain certification records of the fuel analysis provided by the supplier.
The second section of the sect	Copies of all records and reports required by this regulation must be kept at Prime Tanning for a minimum period of six years. These records shall be available during normal business hours and copies provided to the Commissioner or his representative upon request.
(Boilers #1,#3,#4,#5)	Prime Tanning shall maintain sufficient records to document fuel use and sulfur content, and shall keep the records on file for a minimum of six years.

C. Process Equipment Requirements

The following table includes the requirements associated with Prime Tanning's process equipment along with the corresponding regulatory citation. Based on these requirements, the Bureau of Air Quality finds that Prime meets the definition of BPT for this initial Part 70 license and VOC RACT as specified in Chapter 134 of the Department's regulations.

Regulatory	Requirements		
Citation	(Emission limits, operational standards, etc.)		
GENERAL STATE OF MAIN	E REQUIREMENTS		
Chapter 101 (A) (1)	Prime Tanning shall limit visible emissions from any general process source to		
	an opacity of 20% on a 6-minute block average basis, except for no more than 1		
	six-minute block average in a 1-hour period.		
Chapter 105	Process PM emissions limited per Table 105A. However, by meeting the		
	opacity limit as required for BPT, it is interpreted by the DEP that Prime also		
	meets the requirements of Chapter 105, therefore streamlining is in effect.		
Chapter 134	Chapter 134 prescribes specific emission restriction targets but also provides the		
	opportunity for a facility to propose an alternative level of control by conducting		
	an alternative RACT analysis. An alternative RACT was finalized through		
	Amendment #5 issued July 23, 1997.		
REQUIREMENTS OF AIR EN	41SSION LICENSE #1542 AND SUBSEQUENT AMENDMENTS		
Amendment #5 (VOC	The total VOC emissions from the Prime Tanning Facility shall not exceed 14.0		
RACT)	lbs VOC/1000 square feet of leather product on a 12-month rolling average		
A-376-72-E-A	basis. The first 12 months was from June 1, 1995 to May 31, 1996.		
Condition (1)			
(A)(a)(i)			
Amendment #5	The total VOC emissions from the Prime Tanning Facility shall not exceed 24		
A-376-72-E-A	lb/1000 square feet of water proof leather product on a 12-month rolling average		
Condition (1)	basis. The first 12 months was from June 1, 1995 to May 31, 1996.		
(A) (b) (i)			

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Regulatory Requirements		
Citation	(Emission limits, operational standards, etc.)	
Amendment #5	VOC Emissions from Prime Tanning's process will be calculated by:	
A-376-72-E-A	 recording the VOC content (ie.lb/gal) of all material purchased 	
Condition (1) (A)(b)		
(ii,iii,iv)	the facility.	
	VOC emissions must be calculated as defined in this and subsequent conditions	
	in the license.	
Amendment #5	The total VOC emissions from the Prime Tanning Facility shall not exceed 480	
A-376-72-E-A	tons of VOC per year on a twelve month rolling total basis, where:	
Condition (1) (A)(c)	(i) the first twelve months was from June 1, 1995 to May 31, 1996; (ii)	
(1) (1)	the tons of VOC emissions are documented by purchase records	
	(including VOC content) of all materials purchased.	
	VOC emissions from the boilers are also included in this total.	
Amendment #5	Prime Tanning shall submit semi-annual reports demonstrating compliance with	
A-376-72-E-A	the above BPT requirements, concerning the VOC tpy and lb/1000 ft ² emission	
Condition (1)	limits, within 30 days following the end of the second calendar quarter	
Condition (1)	corresponding to the date of license issuance.	
Amendment #5	Prime Tanning shall utilize electric eyes on all automatic spray lines at all times	
A-376-72-E-A	that the lines are operating. The electric eyes shall be maintained and operated	
Condition (3)	according to the manufacturer's specifications and operating procedures.	
Amendment #5	Prime Tanning shall utilize high volume low pressure (HVLP) spray guns on all	
A-376-72-E-A	automatic spray lines at all times that the lines are operating. The HVLP guns	
Condition (4)		
Condition (4)	shall be maintained and operated according to the manufacturer's specifications	
Amendment #5	and operating procedures. Prime Tanning must continue to research into waterproofing leather in the	
A-376-72-E-A	coloring drums to reduce VOC emissions. To document progress on VOC	
	reduction in the waterproofing process, Prime will provide data on mineral	
Condition (5)	spirits use for the previous year.	
Amondanat 45	Prime Tanning shall develop standard operating and maintenance procedures	
Amendment #5 A-376-72-E-A	(SOMP) to minimize VOC losses, and post these procedures at the appropriate	
	locations within the facility. The procedures must contain:	
Condition (7)		
	• A procedure to minimize the volatilization of solvents during the	
	measuring of coating proportions and/or mixing of coatings;	
	A procedure to minimize VOC fugitive losses from the coating and Procedures should include mathed as for	
	solvent storage rooms. Procedures should include methods of	
. 5	securely sealing containers and methods of securely sealing	
	containers and methods to clean up accidental spills.	
	A procedure to minimize solvent usage or VOC losses during	
	equipment cleanup, and during transport (including the transferring	
	of coatings from the mixing areas to the coating lines).	
	The SOMP plan has become part of the facility's BPT plan.	

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Periodic Monitoring for Process Equipment:

Emission Unit	Requirements		
	(Recordkeeping/Reporting)		
Leather Operations Excluding Waterproofing/Silicone Line	Prime Tanning must maintain the following records: Beginning of Month Facility Storage of VOC containing materials Monthly Facility Purchases of VOC containing materials End of Month Facility Storage of VOC containing materials Quantity of VOC containing materials shipped off-site The square feet of the leather processed shall be documented by the area (square feet) measurements taken from the coloring room		
Waterproofing/Silicone Line	Prime Tanning must maintain the following records: Beginning of Month Facility Storage Monthly Facility Purchases End of Month Facility Storage Quantity Shipped off Site The square feet of the waterproof leather processed shall be documented by the area (square feet) measurements taken from the coloring room. The leather in the coloring room will be designated as waterproof or non-waterproof leather. The performance criteria for waterproof leather are defined in ASTM-D2099, and the leather designated as waterproof will have a "WT" (Weathertuff) attached to the product name.		
Waterproofing/Silicone Line	Prime Tanning must continue to research into waterproofing leather in the coloring drums to reduce VOC emissions. To document progress on VOC reduction in the waterproofing process, Prime will provide data on mineral spirits use for the previous year.		
Waterproofing/Silicone Line	Prime Tanning must annually reevaluate add-on pollution control technology for the silicone line if 50 tpy of VOC (based on a 12-month rolling total) is emitted from the line. A report shall be submitted to the Department, evaluating the control technology strategies and a cost assessment for each.		
Leather Operations Excluding Waterproofing/Silicone Line and Waterproofing/Silicone Line	Prime Tanning shall submit semi-annual reports demonstrating compliance with RACT requirements outlined in their Air Emission License/Title V Permit within 30 days following the end of the second calendar quarter corresponding to the date of license issuance.		

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General Facility Periodic Monitoring

Emission Unit	Requirements (Recordkeeping/Reporting)
General Facility Requirement	Prime Tanning shall maintain sufficient records to accurately document compliance with emission standards, including visible emissions, and license conditions and shall maintain such records for a minimum of 6 years. The records shall be submitted to the Department upon written request. In lieu of ongoing Method 9 tests, Prime shall conduct weekly inspections of visible emission sources.
General Facility Requirement	Prime Tanning shall maintain records of malfunctions, failures, downtime, and any other change in operation of air pollution control apparatus or the emissions unit itself that would affect emissions. Prime Tanning shall notify the DEP within (2) working days (48 hours) of such occasions. Within (5) working days, Prime Tanning shall submit a written report describing the cause, duration, remedial action, and steps to be taken to prevent recurrence of such malfunctions, failures or downtimes.
General Facility Requirement	Prime Tanning shall maintain sufficient records and annually report to the DEP, fuel use, operating rates, use of materials and other information necessary to accurately update the State's emission inventory.

D. Facility Emissions

Total Allowable Annual Emissions for the Facility

(used to calculate the annual license fee)

Pollutant	TPY
PM	30.4
PM ₁₀	30.4
SO ₂	157
NO_X	80.3
CO	7.3
VOC	480

III. AMBIENT AIR QUALITY ANALYSIS

A. Overview

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A combination of screening and refined modeling was performed to show that the applicant, in conjunction with other sources, would not cause or contribute to violations of Maine Ambient Air Quality Standards (MAAQS) for SO₂, PM₁₀, NO₂ and CO or to Class II increments for SO₂, TSP, PM₁₀ and NO₂.

Because the applicant's facility is located 100 kilometers away from the nearest Class I area, no Class I analysis was performed.

B. Model Inputs

The ISCST2 and ISCST3 models were used in screening and refined modes, respectively, to address standards and increment in all areas. In addition, the VALLEY mode of the Complex I model (CI-VM) was used to evaluate impacts in complex terrain, i.e., areas where terrain elevations exceed current/proposed stack-top elevations. Since the applicant's stacks are greater than H + 0.5L (where H is the height of the controlling structure and L is the lesser of the height or maximum projected width of that structure), no cavity analysis was performed.

All modeling was performed in accordance with all applicable requirements of the Maine Department of Environmental Protection, Bureau of Air Quality (MEDEP-BAQ) and the United States Environmental Protection Agency (USEPA).

The meteorological database used in the ISCST2 screening analysis consisted of DEP's standard fifty-four hours of data that represents a variety of wind speed and stability class combinations. A wind speed of 2.5 m/s and Class "F" stability was assumed in the CI-VM analysis.

A valid 5-year hourly meteorological off-site database was used in the refined modeling. The wind data was collected at a height of 6.09 meters at the Pease Air Force Base (PAFB) meteorological site during the 5-year period 1979-1983. Missing data were interpolated or coded as missing. Portland National Weather Service (PNWS) surface temperature data was used. Hourly cloud cover, ceiling height and surface wind speed, also from the Portland NWS, were used to calculate stability. Hourly mixing heights were derived from PNWS surface and upper air data.

Stack parameters for the applicant, as well as off-site sources to be included in the analysis, are listed in Table IV-1. The modeled stack at the applicant's facility is 100% of formula GEP height. The applicant's stack, in addition to all other facilities' stacks included in this analysis, were modeled with the appropriate algorithms as required.

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Table IV-1 Stack Parameters

Part A. Current/Proposed

Part A. Current/Proposed					
	Stackbase Elevation	Stack Height	Stack Diameter	UTM E	UTM N
Forsilite./Storle	1	_			
Facility/Stack	(m)	(m)	(m)	(km)	(km)
Prime Tanning					
• Stack 1 (Boilers 1, 3 and 4)	54.90	24.38	0.79	348.704	4791.987
PSNH - Schiller Station		•			
• Stack 1 (Boilers 4, 5 and 6)	6.10	68.90	2.44	354.681	4772.976
Stack 2 (Combust. Turbine)	6.10	5.30	4.05	354.681	4772.976
PSNH - Newington Station			·		
Stack 1 (Boilers 1A and B)	12.20	125.00	6.34	354.163	4773.156
Stack 2 (Boiler EGU-1)	12.20	56.10	1.07	354.163	4773.156
Portsmouth Naval Shipyard				•	
• Stack 1 (Boiler 2)	6.10	50.90	1.52	358.500	4771.125
• Stack 2 (Boiler 3)	6.10	50.90	1.14	358.500	4771.110
• Stack 3 (Boiler 4)	6.10	50.90	1.14	358.500	4771.095
• Stack 4 (Boiler 5)	6.10	50.90	1.14	358.500	4771.080
UNH - Durham					
• Stack 1 (Boilers 1 - 4)	18.30	61.00	1.25	342.554	4777.624
• Stack 2 (Boiler 5)	18.30	15.20	1.22	342.554	4777.624
Pratt & Whitney					
• Stack 1 (Boiler 1)	43.60	28.95	0.51	359.800	4796.500
• Stack 2 (Boiler 2)	43.60	28.95	0.76	359.800	4796.500
• Stack 3 (Boiler 3)	43.60	28.95	1.27	359.800	4796.500

Part B. Applicant's 1987 Baseline Stack Parameters

Prime Tanning					
• Stack 1 (Boiler 2)	54.90	28.80	1.38	348.704	4791.987
• Stack 2 (Boilers 1, 3 and 4)	54.90	20.00	0.76	348.700	4792.000

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Portsmouth Naval Shipyard, University of New Hampshire at Durham and Pratt & Whitney.

ISCST3 refined modeling was performed to demonstrate that SO₂ and NO₂ MAAQS, in conjunction with other sources, would be met. Table IV-5 contains the maximum combined source impacts in both simple and complex terrain. Maximum simple terrain combined impacts for 3-hour, 24-hour and annual SO₂ were predicted 14.10 kilometers southeast, 0.2 kilometers southwest and 0.4 kilometers east of the applicant's facility, respectively. Annual NO₂ simple terrain impacts were predicted 0.2 kilometers southwest of the applicant's facility.

In order to evaluate the applicant's impacts in complex terrain, CI-VM screening was performed. Other sources were included in the analysis for SO_2 and NO_2 by modeling all sources together in one run at F-stability, 2.5 m/s with the model predicting Prime Tanning's contribution for all 36 wind directions at each source's critical receptors. Maximum combined source complex terrain impacts for 3-hour, 24-hour and annual SO_2 were predicted 11.4 kilometers south-southeast of the applicant's facility. The maximum annual combined source complex terrain NO_2 impact was predicted 2.5 kilometers north of the applicant's facility.

For all pollutant averaging times, the highest of the maximum-modeled impacts from each scenario were added together with conservative background concentrations to demonstrate compliance with MAAQS. Because the impacts using this method meet MAAQS, no further modeling need be performed.

Table IV-5. Combined Source Impacts in Simple and Complex Terrain (µg/m³)

Pollutant	Averaging Period	ISCST2 Refined	CI-VM Impact	Background	Max Total Impact	MAAQS
SO ₂	3-hr	514.23	562.42	52.00	614.42	1150
	24-hr	143.53	156.23	29.00	185.23	230
	Annual	12.61	49.99	5.00	54.99	57
NO ₂	Annual	6.02	6.17	26.00	32.17	100

E. Increment

ISCST2 refined modeling in simple terrain and CI-VM screening modeling in complex terrain were used to demonstrate that NO₂ increments would not be violated by the applicant alone. Since MEDEP had determined that the applicant's current short term and annual SO₂ and PM emissions are lower than baseline emissions and

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that current annual NO₂ emissions are slightly higher than their baseline annual emissions, only a NO₂ increment analysis needed to be performed. Current actual emission rates, derived from fuel usage data, have been used in this analysis. Since the applicant's predicted NO₂ increment impacts alone were very small and no other sources are located nearby, it has been determined that combined source NO₂ increment modeling was not necessary, and only the increment consumed by the applicant would be modeled. The highest annual NO₂ impact in simple terrain was predicted 1.2 kilometers northwest of the applicants' facility. The highest impact in complex terrain occurred at a receptor 2.4 kilometers east of the applicant. All modeled Class II impacts were in compliance with all applicable increment standards.

TABLE IV-7 Maximum Predicted Increment Impacts (µg/m³)

	Averaging	ISCST2	CI-VM	Class II Increment
Pollutant	Period	Impact	Impact	Standards
NO ₂	Annual	0.17	0.19	25

F. Class I Impacts

Because the applicant's facility is located approximately 100 kilometers away from the nearest Class I area and the applicant's Class II NO₂ increment consumption is minimal, no Class I increment analysis was performed.

G. Summary

In summary, the applicant has made a demonstration that the facility, in its current or proposed configuration, will not cause or contribute to a violation of MAAQS or to Class I or II increments.

<u>ORDER</u>

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this sources:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

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The Department hereby grants the Part 70 License A-376-70-A-I, subject to the following conditions:

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: Enforceable by State-only.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emission units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license:
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140;
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both;
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request; Enforceable by State-only
- (5) The licensee shall pay the annual air emissions license fee to the Department, calculated pursuant to Title 38 MRSA §353;
- (6) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege;

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- (7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; Enforceable by State-only
- (8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license;
- (9) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license.
- (10) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable.
- (11) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license;
- (12) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (a) perform stack testing under circumstances representative of the facility's normal process and operating conditions:
 - (i) within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
 - (ii) to demonstrate compliance with the applicable emission standards; or
 - (iii) pursuant to any other requirement of this license to perform stack testing.

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- (b) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emissions testing; and
- (c) submit a written report to the Department within thirty (30) days from the date of test completion.

Enforceable by State-only

- (13) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
 - (a) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (b) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there where intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (c) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on a interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

Enforceable by State-only

(14) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

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- (15) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
 - (a) Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
 - (b) The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to section 114 of the CAA.

- (16) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license.
- The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next working day, whichever is later, of such occasions and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;
- (18) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

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- (19) The licensee shall submit quarterly reports of any required monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.
- (20) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequent if specified in the Applicable requirement by the Department. The compliance certification shall include the following:
 - (a) The identification of each term or condition of the Part 70 license that is the basis of the certification:
 - (b) The compliance status;
 - (c) Whether compliance was continuous or intermittent;
 - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
 - (e) Such other facts as the Department may require to determine the compliance status of the source;
- (21) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
 - (a) Additional Applicable requirements under the CAA become applicable to the Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to Chapter 140;
 - (b) Additional requirements (including excess emissions requirements) become applicable to the Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
 - (c) The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms of conditions of the Part 70 license; or

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(d) The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

(22) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license.

SPECIAL CONDITIONS

(23) The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application submitted August 28, 1996.

SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
Boilers #1, #3, #4, #5	40 CFR Part 60 Subpart Db	Standards of Performance for steam generating units with a maximum heat input rate greater than 100 MMBtu/hr.	All units less than 100 MMBtu/hr
Boilers #1, #3, #4, #5	40 CFR Part 60 Subpart Dc	Standards of Performance for Small industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to June 9, 1989
facility	40 CFR Part 61, Subpart V	Subpart is applicable to punips, compressors, pressure relief devices, valves, flanges, and control devices that operate in volatile hazardous air pollutant (VIIAP) service. VHAP includes only Benzene and Vinyl Chloride.	No equipment in benzene or vinyl chloride service at the Prime Tanning facility.
facility	40 CFR Part 63, Subpart B	Applies to major sources of IIAPs in a source category/subcategory for which EPA has failed to promulgate a standard by the 112 (j) deadline.	EPA is developing a MACT standard for the leather tanning process.
facility	40 CFR Part 63, Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.	Affects styrene/butadiene rubber production, polybutadiene rubber production and processes producing certain agricultural chemicals. No affected units at Prime.
facility	40 CFR Part 63, Subpart Q	Chromium Emissions from Industrial Process Cooling Towers .	This standard applies to industrial process cooling towers that are operated with Chromium-based water treatment chemicals. No affected units at the facility.

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facility	40 CFR Part 63, Subpart T	Standards of Performance for Halogenated Solvent Cleaners	For solvent cleaners containing methylene chloride, perchloroethylene, l,l,l, trichloroethane, carbon tetrachloride, or chloroform. Prime does not operate solvent cleaners at the facility.
facility	Chapter 111	Petroleum Liquid Storage Vapor Control	Prime Tanning does not have any volatile petroleum liquids with vapor pressures greater than 1.0 psia stored in fixed roof storage vessels with capacities greater than 39,000 gallons.
facility	Chapter 117	Source Surveillance	Prime Tanning is not required to operate continuous emission monitors.
facility	Chapter 129	Surface Coating Facilities	Prime Tanning does not operate any of the surface coating operations outlined in this regulation
facility	Chapter 138	NOx RACT	The facility is limited to less than 99.9 tons of NOx per year.

- (24) The combined total fuel use for Boilers #1, #3, and #4 shall not exceed 2,000,000 gallons/year (based on a 12 month rolling total) of #6 oil with a sulfur content not to exceed 1.0% by weight. [MEDEP Chapter 140, BPT]
- (25) Emissions from each boiler (#1, #3, #4) shall not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.20	MEDEP Chapter 103,	-
		Section 2(B)(1)(a)	
PM ₁₀	0.20	MEDEP Chapter 140, BPT	Enforceable by State-only

(Boiler #1 lb/hour emission limits)

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	7.2	MEDEP Chapter 140, BPT	Enforceable by State-only
PM ₁₀	7.2	MEDEP Chapter 140, BPT	Enforceable by State-only
SO ₂	37.7	MEDEP Chapter 140, BPT	Enforceable by State-only
NO _x	16.2	MEDEP Chapter 140, BPT	Enforceable by State-only
CO	1.2	MEDEP Chapter 140, BPT	Enforceable by State-only
VOC	0.07	MEDEP Chapter 140, BPT	Enforceable by State-only

(Boiler #3 and #4 lb/hour emission limits)

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	4.5	MEDEP Chapter 140, BPT	Enforceable by State-only

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PM ₁₀	4.5	MEDEP Chapter 140, BPT	Enforceable by State-only
SO ₂	23.6	MEDEP Chapter 140, BPT	Enforceable by State-only
NO _x	10.1	MEDEP Chapter 140, BPT	Enforceable by State-only
CO	0.75	MEDEP Chapter 140, BPT	Enforceable by State-only
VOC	0.04	MEDEP Chapter 140, BPT	Enforceable by State-only

(Boiler #5 lb/MMBtu particulate emission limit)

	Pollutant	lb/MMBtu	Origin and Authority	Enforceability
L	PM	0.01	MEDEP Chapter 140, BPT	Enforceable by State-only

(Boiler #5 lb/hour emission limits)

Pollutant	lb/hr	Origin and Authority	Enforceability
PM	0.15	MEDEP Chapter 140, BPT	Enforceable by State-only
PM ₁₀	0.15	MEDEP Chapter 140, BPT	Enforceable by State-only
SO ₂	0.01	MEDEP Chapter 140, BPT	Enforceable by State-only
NO _x	3.05	MEDEP Chapter 140, BPT	Enforceable by State-only
CO	0.51	MEDEP Chapter 140, BPT	Enforceable by State-only
VOC	0.08	MEDEP Chapter 140, BPT	Enforceable by State-only

- (26) Visible emissions from common stack #1 (Boilers #1, #3, and #4) shall not exceed an opacity of 30 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 140, BPT]
- (27) Visible emissions from Boiler #5 shall not exceed 10% opacity on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 140, BPT]
- (28) Visible emissions from the process equipment shall not exceed 5% opacity on a 6 minute block average basis, except for no more than 1 six minute block average in a one hour period. [MEDEP Chapter 140, BPT]
- (29) BPT limits for control of Volatile Organic Compounds (VOC): [MEDEP Chapter 134]
 - A) The total VOC emissions from the Prime Tanning Facility shall not exceed:
 - a. 14.0 lbs VOC/1000 square feet of leather product on a 12 month rolling average basis and 38 lb/1000 square feet of leather product on a calendar month, where:

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- i. the first 12 months shall start on April 1, 1997;
- ii. the pounds of VOC emissions are calculated by recording the VOC content (i.e. lb/gallons) of all material purchased and by recording the amount (i.e. gallons) of VOC containing material, excluding the materials purchased for the waterproofing process, used at the facility. Prime shall maintain records of the following:
 - A. Beginning of Month Facility Storage
- B. Monthly Facility Purchases
- C. End of Month Facility Storage
- D. Quantity Shipped off Site

VOC emissions from the Prime facility shall be defined as follows, based on the information gathered from A. through D. above:

Monthly VOC Emissions = (A x VOC content) + (B x VOC content) - (C x VOC content) - (D x VOC content)

- iii. the square feet of the leather processed shall be documented by the area (square feet) measurements taken from the coloring room. Coloring is the one operation done only once and is not affected by returned or rejected products. The leather will be designated at this point as waterproof or non-water proof leather.
- b. 24 lb of VOC/1000 ft² of leather product on a 12 month rolling average basis and 38 lb/1000 ft² of leather product during any one calendar month basis for all leather product that is subject to waterproofing operations, where:
 - i. the first 12 months shall start on April 1, 1997;
 - ii. the pounds of VOC emissions from the waterproofing process, are calculated by recording the VOC content (i.e. lb/gallons) of all material purchased and by recording the amount (i.e. gallons) of VOC containing material used for waterproofing at the facility. Prime shall maintain records of the following:
 - A. Beginning of Month Facility Storage
- B. Monthly Facility Purchases
- C. End of Month Facility Storage
- D. Quantity Shipped off Site

VOC emissions from the waterproofing process at the Prime facility shall be defined as follows, based on the information gathered from A. through D. above:

Monthly VOC Emissions = (A x VOC content) + (B x VOC content) - (C x VOC content) - (D x VOC content)

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- iii. the square feet of the waterproof leather processed shall be documented by the area (square feet) measurements taken from the coloring room. Coloring is the one operation done only once and is not affected by returned or rejected products. The leather in the coloring room will be designated as waterproof or non-waterproof leather.
- iv. the performance criteria for waterproof leather are defined in ASTM-D2099, and the leather designated as waterproof will have a "WT" (Weathertuff) attached to the product name.
- c. 480 tons of VOC per year on a 12 month rolling total basis, where:
 - i. the first 12 months shall start on April 1, 1997; and
 - ii. the tons of VOC emissions are documented by purchase records, which shall include the VOC content of all materials purchased. VOC emissions from the boilers are also included in this total.
- B) Prime shall submit a semi-annual report, in writing to the Department, of the above monthly RACT limit demonstrations within 30 days from the end of the second calendar quarter following the date of signature of this license. Compliance with the annual RACT limit will be demonstrated at the end of the 12-month rolling average period, as part of the annual compliance certification report.
- (30) Prime shall utilize electric eyes on all automatic spray lines at all times that the lines are operating. The electric eyes shall be maintained and operated according to the manufacturer's specifications and operating procedures, with the percent uptime for this parameter monitor recorded in the semi-annual report. [MEDEP Chapter 140, BPT]
- (31) Prime shall utilize high volume low pressure (HVLP) spray guns for all manual spraying and on all automatic spray lines at all times that the lines are operating. The HVLP guns shall be maintained and operated according to the manufacturer's specifications and operating procedures. [MEDEP Chapter 140, BPT]
- (32) Prime shall continue to research into waterproofing leather in the coloring drums to reduce VOC emissions. To document progress on VOC reduction in the waterproofing process, Prime will provide data on mineral spirits use for the previous year. Prime Tanning must reevaluate add-on pollution control technology for the silicone line if 50 tpy (based on a 12-month rolling total) is documented from

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this line. An annual report shall be submitted to the Department, evaluating the control technology strategies and a cost assessment for each. [MEDEP Chapter 140, BPT]

- (33) Prime shall develop standard operating and maintenance procedures (SOMP) to minimize VOC losses, and post these procedures at the appropriate locations within the facility. These procedures shall contain at a minimum:
 - a. A procedure to minimize the volatilization of solvents during the measuring of coating proportions and/or mixing of coatings;
 - b. A procedure to minimize VOC fugitive losses from the coating and solvent storage rooms. Procedures should include methods of securely sealing containers and methods to clean up accidental spills.
 - c. A procedure to minimize solvent usage or VOC losses during equipment cleanup, and during transport (including the transferring of coatings from the mixing areas to the coating lines.

The SOMP plan shall become part of the BPT plan. Prime shall periodically review, at least annually, the SOMP plan for completeness and updating purposes. [MEDEP Chapter 140, BPT]

(34) Semiannual Reporting

The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The initial semiannual report is due October 30, 2000, 30 days from the end of the second calendar quarter following the date of signature of this license.

- A. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- B. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

 [MEDEP Chapter 140]

(35) Annual Compliance Certification

The licensee shall submit an annual compliance certification to the Department in accordance with Condition (20) of this license. The initial annual compliance certification is due April 30, 2001, 30 days from the end of the fourth calendar quarter. The annual compliance certification shall be submitted with the second semiannual report after the signature date of this license.
[MEDEP Chapter 140]

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	report t	o the Department, in a speci and other information necess y. [MEDEP Chapter 137]		
(37) Any document (including representation responsible official. [MEDEF	•		t be signed by a	
(38) The term of this license shall b	e five (5	i) years from the signature da	ite below.	
DONE AND DATED IN AUGUST. DEPARTMENT OF ENVIRONME			2000.	
BY: MARTHA G. KIRKPATRIC	CK, CON	MMISSIONER		
PLEASE NOTE THE ATTACHED SHEET	r for G	JIDANCE ON APPEAL PROCEE	URES	
Date of initial receipt of application Date of application acceptance Date filed with the Board of Environ	Septe	mber 12, 1996	·	
This Order prepared by Edwin Cousins, But	reau of Ai	r Quality		



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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52
[ME-003-01-7004a; A-1-FRL-6572-8]

Approval and Promulgation of Air Quality Implementation Plans;
Maine; RACT for VOC Sources

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: EPA is approving several State Implementation Plan (SIP)
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[Federal Register: April 18, 2000 (Volume 65, Number 75)]

On November 15, 1990, amendments to the 1977 Clean Air Act were enacted. Public Law 101-549, 104 Stat. 2399, codified at 42 U.S.C. 7401-7671q. In Maine, pursuant to the Clean Air Act Amendments (CAAA) of 1990, the Portland area (York, Sagadahoc, and Cumberland counties), the Lewiston-Auburn area (Androscoggin and Kennebec counties), and the Knox and Lincoln Counties area were designated as moderate ozone nonattainment areas and the Hancock and Waldo counties area was designated as a marginal ozone nonattainment area. See 56 FR 56694 (Nov. 6, 1991).

Section 182(b)(2) of the amended Act requires states to adopt RACT rules for

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all areas designated nonattainment for ozone and classified as moderate or above. There are three parts to the section 182(b)(2) RACT requirement: (1) RACT for sources covered by an existing Control Technique Guideline (CTG)—i.e., a CTG issued prior to the enactment of the CAAA of 1990; (2) RACT for sources covered by a post—enactment CTG; and (3) all major sources not covered by a CTG, i.e., non-CTG sources. As previously mentioned, three areas in Maine were designated moderate ozone nonattainment areas. These areas were thus subject to the section 182(b)(2) RACT requirement.

Furthermore, the State of Maine is located in the Northeast Ozone Transport Region (OTR). The entire State is, therefore, subject to section 184(b) of the amended CAA. Section 184(b) requires that RACT be implemented in the entire state for all VOC sources covered by a CTG issued before or after the enactment of the CAAA of 1990 and for all major VOC sources (defined as 50 tons per year for sources in the OTR).

A CTG is a document issued by EPA which establishes a presumptive norm for RACT for a specific VOC source category. Under the pre-amended CAA, EPA issued CTG documents for 29 categories of VOC sources. Maine has previously addressed all of EPA's pre-1990 CTGs and EPA has approved Maine's submittals for these source categories. See 57 FR 3946, 58 FR 15281, 59 FR 31154, and 60 FR 33730. Today's document addresses requirements adopted by Maine pursuant to the non-CTG and new (i.e., post-1990) CTG requirements of the CAA.

Section 183 of the amended CAA requires that EPA issue 13 new CTGs. Appendix E of the General Preamble of Title I (57 FR 18077) lists the categories for which EPA plans to issue new CTGs. On November 15, 1993, EPA issued a CTG for Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations and Reactor Processes. Also, on August 27, 1996, EPA issued a CTG for shipbuilding and repair operations and

on May 26, 1996, EPA issued a CTG for wood furniture finishing operations. Furthermore, on March 27, 1998, EPA issued a CTG for aerospace coating operations. CTGs for the remaining Appendix E categories have not yet been issued.

EPA's Evaluation of Maine's Submittals

(A) New CTGs

In response to the CAA requirement to adopt RACT for all sources covered by a new CTG, on November 15, 1994, Maine submitted a negative declaration for the SOCMI Distillation and Reactors Processes CTG categories. Through the negative declaration, the State of Maine is asserting that there are no sources within the State that would be subject to a rule for these source categories. EPA is approving this negative declaration submittal as meeting the section 182(b)(2) and section 184(b) RACT requirements for these two source categories. However, if evidence is submitted by May 18, 2000 that there are existing sources within the State of Maine that, for purposes of meeting the RACT requirements, would be subject to a rule for these categories, if developed, such comments would be considered adverse and EPA would withdraw its approval action on the negative declarations.

EPA's shipbuilding CTG applies to shipbuilding and ship repair coating sources which are major VOC sources, i.e., those with the potential to emit 50 tons or more per year in Maine. On October 9, 1997, Maine submitted a SIP revision for Portsmouth Naval Shipyard. EPA has evaluated the license submitted for this facility and has found it to be approvable. Generally, the facility is required to meet the VOC coating limits recommended by EPA's shipbuilding CTG. The specific requirements imposed on Portsmouth Naval Shipyard and EPA's evaluation of these requirements are detailed in a memorandum dated March 17, 2000, entitled ``Technical Support Document--Maine--RACT for VOC sources'' (TSD). Copies of this document are available, upon request, from the EPA Regional Office listed in the ADDRESSES section of this document. In addition, the Bath Iron Works facility in Bath, Maine is also subject to EPA's shipbuilding CTG. Maine DEP has not yet addressed VOC RACT for this facility but will need to do so in order to fulfill the State's new CTG CAA obligations.

EPA's CTG for wood furniture finishing operations applies to facilities with the potential to emit 25 tons of VOC or more per year. EPA is aware of at least two facilities in Maine which may be covered by this CTG. They are Moosehead Manufacturing's Monson and Dover-Foxcroft plants. Maine needs to address these facilities, as well as any other facilities to which the wood furniture CTG may be applicable,

in order to fulfill the State's new CTG CAA obligations.

EPA's CTG for aerospace coating operations applies to facilities with the potential to emit 25 tons of VOC or more per year. EPA is aware of at least one source in Maine, Pratt & Whitney, which may be covered by this CTG. Maine needs to address this facility, as well as any other facilities to which the aerospace CTG may be applicable, in order to fulfill the state's new CTG CAA obligations.

(B) Chapter 134 Regulation

Maine's Chapter 134 regulation requires major non-CTG VOC sources to implement RACT. The rule is based on EPA Region I's working draft rule entitled ``Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds'' and EPA's national ``Model Volatile Organic Compound Rules for Reasonably Available Control Technology'' (June 1992).

Maine's Chapter 134 is generally consistent with EPA guidance, however, there is one outstanding issue associated with this regulation. This issue involves the generic nature of the rule and is further discussed below. In addition, there are two other aspects of the rule which are somewhat unique to Maine's regulation. These issues are also further discussed below.

(1) Outstanding Issue: Generic Nature of the Regulation

Maine's Chapter 134 establishes three RACT options. The first two options are methods of achieving RACT by either: (a) operating a system to capture and control VOC emissions such that total VOC emissions do not exceed 15% of the uncontrolled daily VOC emissions; or (b) reducing VOC use and emissions such that total VOC emissions do not exceed 20% of the total daily VOC emissions in calendar year 1990 (calculated on either a mass of VOC per mass of solids applied basis for surface coating sources or a mass of VOC per unit of production basis). The third method, stated in section 3(A)(3) of the rule, is to submit a variety of strategies as an alternative compliance plan to reduce VOC emissions.

Since the first two options of Chapter 134 define presumptive norms for RACT, that portion of the regulation meets the requirements of section 182 of the CAA. However, since the third option describes a process by which RACT can be defined but does not define RACT as required by the CAA, this portion of the rule is not approvable. Maine must define explicitly, and have approved by EPA, RACT for all of those sources which do not conform to the presumptive RACT options outlined in the regulation.

Maine has submitted to EPA many, although not all, of the necessary single source SIP revisions. Specifically, SIP revisions have been

submitted for all of

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the applicable sources in the following counties: York, Sagadahoc, Cumberland, Androscoggin, Kennebec, Knox, Lincoln, Hancock, Waldo, Aroostook, Franklin, Oxford, and Piscataquis. The sources for which non-CTG VOC RACT determinations have been submitted are discussed below in section (C). Maine must, however, submit, and EPA must approve, SIP revisions for all of the remaining sources which do not choose to conform to the presumptive RACT options outlined in the regulation in order for Chapter 134 to be approvable statewide. These sources are: GP Chip'n Saw and Mearl Corporation in Washington County, Irving Tanning in Somerset County, and Great Northern Paper's two facilities in Penobscot County.

(2) Other Aspects Unique to Maine's Rule

There are two other aspects of Chapter 134 which are unique to Maine's rule. These are the requirements for pulp and paper processes and the exemptions included in the rule. Section 3(A)(4) of Chapter 134 (Option D) specifically addresses VOC RACT requirements for pulp and paper processes. For example, Option D requires that emissions from the digester system, multiple effect evaporator systems, condensate stripper systems, smelt tanks, and lime kilns be controlled through incineration or wet scrubber systems in accordance with Maine's Chapter 124 ``Total Reduced Sulfur Control from Kraft Pulp Mills.'' Chapter 134 also includes exemptions for specific pieces of equipment. For example, the rule contains an exemption for kraft recovery boilers. EPA has determined that the Chapter 134 requirements for pulp and paper processes and the exemptions included in the rule are approvable and that the rule is generally consistent with EPA guidance with the exception of the outstanding issue (i.e., the generic nature of the rule) discussed above. The specific requirements of Chapter 134 and EPA's evaluation of these requirements are detailed in the TSD. Copies of this document are available, upon request, from the EPA Regional Office listed in the ADDRESSES section of this document.

(C) Non-CTG RACT Determinations

On January 10, 1996, Maine submitted licenses for the following pulp and paper facilities: SD Warren Paper Company (Westbrook and Skowhegan), Lincoln Pulp and Paper, James River, International Paper, Boise Cascade, and Georgia Pacific. Also, on July 1, 1997, Maine submitted licenses for Champion International, Boise Cascade, and International Paper to EPA as a SIP revision. These facilities are all

pulp and paper mills. These licenses include conditions which re-state some of the Chapter 134 Option D requirements. The licenses also address VOC emissions from operations that are not addressed in Option D, such as the mechanical pulping operations which occur at Boise Cascade, Champion International, and International Paper.

In addition to the pulp and paper licenses, Maine also submitted a license for Pioneer Plastics on July 1, 1997. Pioneer Plastics manufactures specialty resins and produces a decorative laminate used for counter tops and furniture. Generally, Pioneer's license requires emissions from certain reactors to be vented to an incinerator and emissions from other reactors to be vented to a vapor condenser. Also, on November 14, 1997 and December 10, 1997, Maine submitted licenses for Prime Tanning and Dexter Shoe. Prime Tanning is a leather finishing facility. Prime Tanning's license includes provisions which impose work practice and equipment standards, as well as VOC coating emission limitations, on the facility. Dexter Shoe is a shoe manufacturing facility. The majority of Dexter's VOC emissions are generated through the use of solvent based primers and adhesives. The use of low VOC products and the implementation of certain work practice and equipment standards were determined to represent RACT for Dexter. Furthermore, a license for Nissen Bakeries was submitted to EPA as a SIP revision on October 9, 1997. The majority of VOC emissions at this facility resulted from the baking of yeast-leavened bread. The license issued to Nissen Bakeries requires that the facility cease production of yeast leavened bread by May 15, 1999.

EPA has evaluated the licenses submitted for all of the facilities listed above and has found that these licenses are consistent with EPA guidance. The specific requirements imposed on each facility and EPA's evaluation of these requirements are detailed in the TSD. Copies of this document are available, upon request, from the EPA Regional Office listed in the ADDRESSES section of this document.

EPA is publishing this action without prior proposal because the Agency anticipates no adverse comments on this rulemaking. However, in a separate document in this Federal Register publication, EPA is proposing to approve the SIP revision should adverse or critical comments be filed. This action will be effective June 19, 2000 unless adverse or critical comments are received by May 18, 2000.

If the EPA receives such comments, this action will be withdrawn before the effective date by publishing a subsequent document that will withdraw the final action. All public comments received will then be addressed in a subsequent final rule based on the proposed rule. The EPA will not institute a second comment period on this action. Any parties interested in commenting on this action should do so at this time. If no such comments are received, the public is advised that this

action will be effective on June 19, 2000.

Final Action

EPA is issuing a full approval of Maine's Chapter 134 `Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds' as meeting the CAA sections 182(b)(2)(C) and 184(b) non-CTG VOC RACT requirements for York, Sagadahoc, Cumberland, Androscoggin, Kennebec, Knox, Lincoln, Hancock, Waldo, Aroostook, Franklin, Oxford, and Piscataquis Counties. EPA is also issuing a limited approval of Maine's Chapter 134 for Washington, Somerset, and Penobscot Counties.

In addition, EPA is approving licenses for the following facilities and incorporating them into the Maine SIP: SD Warren Paper Company (Westbrook and Skowhegan), Lincoln Pulp and Paper, James River, International Paper, Georgia Pacific, Pioneer Plastics, Champion International, Nissen Bakeries, Prime Tanning, Dexter Shoe, Portsmouth Naval Shipyard, and Boise Cascade.

Furthermore, EPA is also approving Maine's negative declaration for the SOCMI Distillation and Reactor Processes CTG categories as meeting the CAA VOC RACT requirements for these source categories.

Nothing in this action should be construed as permitting or allowing or establishing a precedent for any future request for revision to any State Implementation Plan. Each request for revision to the State Implementation Plan shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

Administrative Requirements

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a ``significant regulatory action'' and therefore is not subject to review by the Office of Management and Budget. This action merely approves state law as meeting federal requirements and imposes no additional requirements

[[Page 20752]]

beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small

governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4). For the same reason, this rule also does not significantly or uniquely affect the communities of tribal governments, as specified by Executive Order 13084 (63 FR 27655, May 10, 1998). This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely approves a state rule implementing a federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the Clean Air Act. This rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the Clean Air Act. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the 'Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings' issued under the executive order. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal

Register. This action is not a ``major rule'' as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 19, 2000. Interested parties should comment in response to the proposed rule rather than petition for judicial review, unless the objection arises after the comment period allowed for in the proposal. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).) Interested parties should comment in response to the proposed rule rather than petition for judicial review, unless the objection arises after the comment period allowed for in the proposal.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Incorporation by reference, Ozone, Reporting and recordkeeping requirements.

Note: Incorporation by reference of the State Implementation Plan for the State of Maine was approved by the Director of the Federal Register on July 1, 1982.

Dated: March 24, 2000.

Mindy S. Lubber,

Regional Administrator, EPA New England.

Part 52 of chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52--[AMENDED]

The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 et seq.

Subpart U--Maine

2. Section 52.1020 is amended by adding paragraph (c)(45) to read as follows:

Sec. 52.1020 Identification of plan.

* * * * *

- (c) * * *
- (45) Revisions to the State Implementation Plan submitted by the Maine Department of Environmental Protection on April 28, 1995, January 10, 1996, July 1, 1997, October 9, 1997, November 14, 1997, and December 10, 1997.
 - (i) Incorporation by reference.
- (A) Chapter 134 of the Maine Department of Environmental Protection regulations entitled `Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds,' effective in the State of Maine on February 15, 1995, is granted a full approval for the following counties: York, Sagadahoc, Cumberland, Androscoggin, Kennebec, Knox, Lincoln, Hancock, Waldo, Aroostook, Franklin, Oxford, and Piscataquis. This rule is granted a limited approval for Washington, Somerset, and Penobscot Counties.
- (B) License Amendment #5 issued by the Maine Department of Environmental Protection to Prime Tanning Company on July 23, 1997.
- (C) License Amendment #6 issued by the Maine Department of Environmental Protection to Prime Tanning Company on October 27, 1997.
- (D) Eicense issued by the Maine Department of Environmental Protection to JJ Nissen Baking Company on February 25, 1997.
- (E) License Amendment #4 issued by the Maine Department of Environmental Protection to Portsmouth Naval Shipyard on July 25, 1997.
- (F) License issued by the Maine Department of Environmental Protection to Dexter Shoe Company on December 5, 1996.
- (G) License Amendment #1 issued by the Maine Department of Environmental Protection to Dexter Shoe Company on October 20, 1997.
- (H) License Amendment #3 issued by the Maine Department of Environmental Protection to Pioneer Plastics Corporation on June 16, 1997.
- (I) License Amendment #10 issued by the Maine Department of Environmental Protection to Georgia Pacific Corporation on January 4, 1996.

[[Page 20753]]

- (J) License Amendment #5 issued by the Maine Department of Environmental Protection to Champion International Corporation on January 18, 1996.
- (K) License Amendment #8 issued by the Maine Department of Environmental Protection to International Paper Company on October 4,

1995.

- (L) License Amendment #9 issued by the Maine Department of Environmental Protection to International Paper Company on December 13, 1995.
- (M) License Amendment #6 issued by the Maine Department of Environmental Protection to James River Corporation on December 8, 1995.
- (N) License Amendment #8 issued by the Maine Department of Environmental Protection to Lincoln Pulp and Paper Co. on December 18, 1995.
- (O) License Amendment #14 issued by the Maine Department of Environmental Protection to S.D. Warren Paper Company's Westbrook, Maine facility on December 18, 1995.
- (P) License Amendment #14 issued by the Maine Department of Environmental Protection to S.D. Warren Paper Company's Skowhegan, Maine facility on October 4, 1995.
- (Q) License Amendment #15 issued by the Maine Department of Environmental Protection to S.D. Warren Paper Company's Skowhegan, Maine facility on January 9, 1996.
- (R) License Amendment #11 issued by the Maine Department of Environmental Protection to Boise Cascade Corporation on December 20, 1995.
 - (ii) Additional materials
- (A) Letter from the Maine Department of Environmental Protection dated November 15, 1994 stating a negative declaration for the Synthetic Organic Chemical Manufacturing Industry Distillation and Reactors Control Technique Guideline categories.
 - (B) Nonregulatory portions of the submittal.
- 3. In Sec. 52.1031, Table 52.1031 is amended by adding new state citations for Chapter 134 to read as follows:

Sec. 52.1031 EPA-approved Maine Regulations

* * * * *

Control Technology for Facilities that Emit Volatile Organic Compounds.

published date].

134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	2/25/97	4/18/00	[Insert FR citation from (c)(published date].	
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	7/23/97 10/27/97	4/18/00	[Insert FR citation from (c)(published date].	
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	7/25/97	•4/18/00	[Insert FR citation from (c)(published date].	
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	12/5/96 10/20/97	4/18/00	[Insert FR citation from (c)(published date].	i
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	6/16/97	4/18/00	[Insert FR citation from (c)(published date].	,
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic ' Compounds.	1/4/96	4/18/00	[Insert FR citation from (c)(published date].	
134	Reasonably Available	1/18/96	4/18/00	[Insert FR citation from (c)(

•	Control Technology for Facilities that Emit Volatile Organic Compounds.			published date].	
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic	10/4/95 12/13/95	4/18/00	[Insert FR citation from published date].	(c) (
134	Compounds. Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	12/8/95	4/18/00	[Insert FR citation from published date].	(c) (
[[Page 20754]]					
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	12/18/95	4/18/00	[Insert FR citation from published date].	(ċ) (
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	12/18/95	4/18/00 •	[Insert FR citation from published date].	(c) (
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds	10/4/95 1/9/96	4/18/00	[Insert FR citation from published date].	(c) (°
134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds.	12/20/95	4/18/00	[Insert FR citation from published date].	(c) (
*	*	*	*	*	

[FR Doc. 00-9537 Filed 4-17-00; 8:45 am] BILLING CODE 6560-50-P

ATTACHMENT 12

IMPACT OF DELISTING OF EGBE

2000 ANNUAL HAPS

	POUNDS
TOTAL HAPS	27,177.02
TOTAL EGBE	22,257.21

TOTAL HAPS WITHOUT EGBE 4,919.81

ATTACHMENT 13

AFFIDAVIT OF ARNOLD HORWEEN, JR.

- I, Arnold Horween, Jr., depose and state as follows:
- 1. I am the President and Owner of Horween Leather Company.
- 2. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.
- 3. I understand this Affidavit is being used to support:

PROPOSED SITE SPECIFIC
AIR POLLUTION REGULATIONS
APPLICABLE TO HORWEEN LEATHER COMPANY
OF CHICAGO, ILLINOIS
35 III. Adm. Code 211.6170
R02(Site-Specific Rulemaking – Air)
Section 218.926
Section 218.929

Date

Imace of conver 30
Arnold Harween Jr.
President
Subscribed and Sworn to Before Me
This H day of Vanuary, 2002.
The state of the s
"OFFICIAL SEAL"
John T. Cu Nton
Notary Public
Notary Publicay Commission Expires Feb. 22, 2003
Annual Co. 22, 2003
My commission expires:

AFFIDAVIT OF JULIE M. CHRISTENSEN

- I, Julie M. Christensen make this statement based upon personal knowledge and belief:
- I am employed by Horween Leather Company as the Director of Safety and Environmental Compliance. I have been employed by Horween Leather Company for 3 years.
- 2. My duties at Horween Leather Company include gathering and maintaining all data regarding environmental and safety issues and completing all regulatory compliance reports under the direction of Arnold Horween, Jr.
- 3. I certify under penalty of law that this document and all attachments were compiled with data that has been collected and maintained by the persons responsible for environmental compliance at Horween Leather Company. All information and data, to the best of my knowledge and belief, are true, accurate and complete.
- 4. I understand this Affidavit is being used to support:

PROPOSED SITE SPECIFIC
AIR POLLUTION REGULATIONS
APPLICABLE TO HORWEEN LEATHER COMPANY
OF CHICAGO, ILLINOIS
35 III. Adm. Code 211.6170
R02(Site-Specific Rulemaking – Air)
Section 218.926
Section 218.929

Julie M. Christensen

Director of Safety and Environmental Compliance

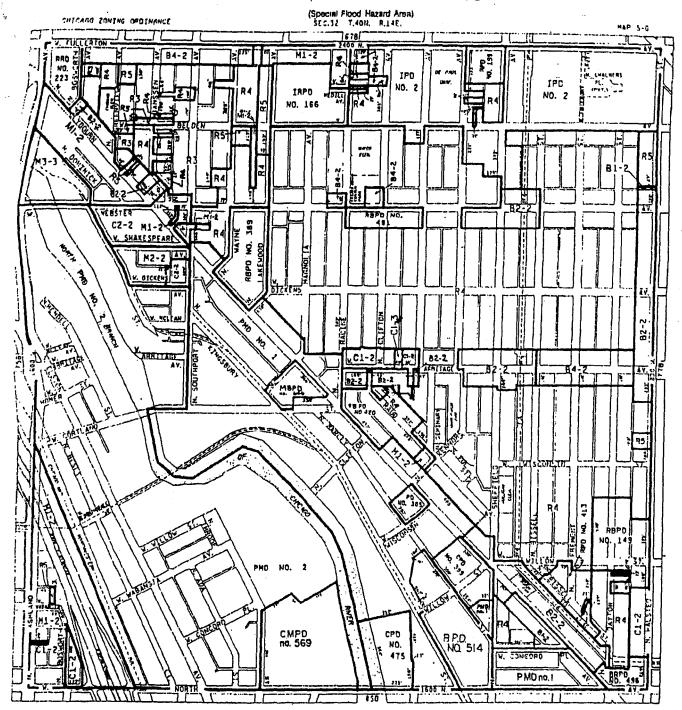
Subscribed and Sworn to Before Me
This day of January, 2002.

"OFFICIAL SEAL"
John T. Culliton
Notary Violent Public, State of Illinois
Wy Commission Expires Feb. 22, 2003

My commission expires:

ATTACHMENT 15

LIME TIME MALESTONIA



RESIDENCE DISTRICTS

FI SINGLE-FAMILY RESIDENCE DISTRICT

R2 SINGLE-FAMILY RESIDENCE DISTRICT

R 3 GENERAL RESIDENCE DISTRICT

The series account of the

R4 GENERAL RESIDENCE DISTRICT

PS GENERAL RESIDENCE DISTRICT

R6 GENERAL RESIDENCE DISTRICT

R7 GENERAL RESIDENCE DISTRICT

R8 GENERAL RESIDENCE DISTRICT

BUSINESS DISTRICTS

BI-1 TO BI-5 LOCAL RETAIL DISTRICTS

82-1 TO 82-5 RESTRICTED RETAIL DISTRICTS

83-1 TO 83-5 GENERAL RETAIL DISTRICTS

84-1 TO 84-5 RESTRICTED SERVICE DISTRICTS

85-1 TO 85-5 GENERAL SERVICE DISTRICTS

86-6 AND 86-7 RESTRICTED CENTRAL BUSINESS DISTRICTS

87-5 TO 87-7 GENERAL CENTRAL BUSINESS DISTRIC'S

FOR USE AND BULK REGULATIONS, RESIDENCE DISTRICTS, SEE ARTICLE ?

FOR USE AND BULK REGULATIONS, BUSINESS DISTRICTS, SEE ARTICLE B

FOR USE AND BULK REGULATIONS, COMMERCIAL DISTRICTS, SEE ARTICLE 9.

FOR USE AND BULK REGULATIONS, MANUFACTURING DISTRICTS, SEE ARTICLE 10

COMMERCIAL DISTRICTS

CI-1 TO CI-5 RESTRICTED COMMERCIAL DISTRICTS

C2-1 TO C2-5 GENERAL COMMERCIAL DISTRICTS

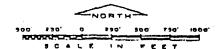
C3-5 TO C3-7 COMMERCIAL-MANUFACTURING DISTRICTS

C4 MOTOR FREIGHT TERMINAL DISTRICT

MANUFACTURING DISTRICTS

M1-1 TO M1-5 RESTRICTED MANUFACTURING DISTRICTS
M2-1 TO M2-5 GENERAL MANUFACTURING DISTRICTS

M3-I TO M3-5 HEAVY MANUFACTURING DISTRICT



a. Total boundary

UI WLU UL . 17 11

West Webster Avenue; North Dominick Street; West Dickens Avenue; North Southport Avenue; West Cortland Avenue; the center line of the North Branch of the Chicago River, North Halsted Street; the easterly right-of-way of the Chicago & Northwestern Railroad; North Lessing Street; North Peoria Street; West Chestnut Street; North Sangamon Street; the right-of-way of the Chicago & Northwestern Railroad; North Elston Avenue; West Augusta Boulevard; the alley first west of North Elston Avenue; the alley first south of West Cortez Street; the right-of-way of the Chicago & Northwestern Railroad; and North Ashland Avenue.

b. Subdistrict boundaries

Subdistrict 1

All areas within the total boundaries of the Planned Manufacturing District except those areas defined as Subdistrict 2.

Subdistrict 2

A line 357 feet north of West North Avenue as measured along the cast line of North Magnolia Avenue or a line thereof if extended where no street exists; the westerly dock line of the North Branch of the Chicago River; West North Avenue; North Magnolia Avenue; a line 165.88 feet south of West North Avenue; North Throop Street; the alley next south of and parallel to West North Avenue; North Elston Avenue; a line from a point 161 feet south of West North Avenue to a point 190 feet south of West North Avenue along the east line of the alley next east of North Noble Street; the alley next east of North Noble Street; a line 92 feet south of West North Avenue; North Noble Street; West North Avenue; North Besly Court; a line from a point 125 feet north of West North Avenue along the east line of North Besly Court, to a point 215.3 feet north of West North Avenue along the west line of North Elston Avenue; North Elston Avenue; a line 300 feet south of West Concord Place; the alley next north of and parallel to West North Avenue; and North Magnolia Avenue or the line thereof if extended where no street exists.

I. Subdistrict 1

A. Permitted Uses.

The following uses are permitted in Subdistrict 1 of the Elston Corridor Planned Manufacturing District, inclusive, provided that within 300 feet of a Residence District all business, servicing or processing shall take place within completely enclosed buildings. Within 300 feet of a Residence District, all storage, except of motor vehicles, shall be within completely enclosed buildings or may be located out-of-doors if it is effectively screened by a solid wall or fence (including solid entrance and exit gates).

- 1. Any production, processing, cleaning, servicing, testing, repair, or storage of materials, goods or information.
 - 2. Cartage and Express Facilities.
 - 3. Contractor, construction or demolition offices, shops or yards.
 - 4. (Deleted Coup. J. 7-30-97, p. 50500.)
 - 5. Earth station antennas not to exceed 8 feet in diameter.
 - 6. Fuel and ice sales, if located in completely enclosed buildings.
 - 7. Garage and parking lots for motor vehicles.
 - 8. Occupational health and safety medical clinics.
 - 9. Offices, business and professional, not below the second floor.
 - 10. Public utility and public service uses.
 - 11. Recycling facilities, Classes I, II and III.
- 12. Retail sales rooms or areas; provided that the sales conducted therein (i) are limited to materials, goods, products or information which, in whole or in part, are manufactured or processed (including production, cleaning, servicing, testing, repair, storage, assembly, fabrication, conversion, alteration of recycling) upon the same zoning lot as such sales rooms or areas are located and (ii) do not exceed 20% of the floor area upon the zoning lot devoted to such manufacture or processing.
 - 13. Signs, as regulated.
 - 14. Storage, warehousing and wholesale establishments.
- 15. Storage of flammable liquids, above ground in tanks in excess of capacity limits set forth in Section 10.10-3(1)a only as provided for in Chapter 15-24-170 of the Municipal Code of Chicago, as amended, as a planned development.
- 16. Temporary buildings for construction purposes, for a pariod not to exceed the duration of such construction.
 - 17. Accessory uses.

PLANNED MANUFACTURING DISTRICTS

PLANNED MANUFACTURING DISTRICT NO. 2 Eiston Corridor (Cont'd)

B. Special Uses.

The following uses shall be special uses in Subdistrict 1 of the Elston Corridor Planned Manufacturing District:

- 1. Earth station antennas exceeding 8 feet in diameter.
- 2. Extraction of sand and gravel and other raw materials.
- 3. Incinerators which have obtained a permit pursuant to Chapter 11-4 of the Municipal Code of Chicago. (Amend. Coun. J. 8-3-94, p. 55154.)

4. Junkvards.

- 5. Liquid waste handling facilities which have obtained a permit pursuant to Chapter 11-4 of the Municipal Code of Chicago. (Amend. Coun. J. 8-3-94, p. 55154.)
 - 6. Off-site accessory parking (within 200 feet).
 - 7. Radio and television broadcasting stations and offices.
- 8. Railroad and water freight terminals, railroad siding and classification yards, repair shops, and roundhouses.

Roof signs.

10. Sanitary landfills which have obtained a permit pursuant to Chapter 11-4 of the Municipal Code of Chicago. (Amend. Coun. J. 8-3-94, p. 55154.)

11. Slaughtering houses and rendering plants.

12. Transfer stations which have obtained a permit pursuant to Chapter 11-4 of the Mu-

nicipal Code of Chicago. (Amend. Coun. J. 8-3-94, p. 55154.)

13. Reprocessable Construction/Demolition Material Facility, provided that such use shall comply with and, following a duly scheduled public hearing, the applicant shall have obtained a permit pursuant to Chapter 11-4 of the Municipal Code of Chicago and that the definition of the Reprocessable Construction/Demolition Material Facility as set forth in Chapter 16-8 shall be controlling for purposes of this chapter. (Added. Coun. J. 8-3-94, p. 55154.)

C. Performance Standards.

The performance standards affecting Subdistrict 1 of the Elston Corridor Planned Manufacturing District are those applicable to an M3 District.

1. Noise: as per Sections 10.5 and 10.5-3 of the Chicago Zoning Ordinance.

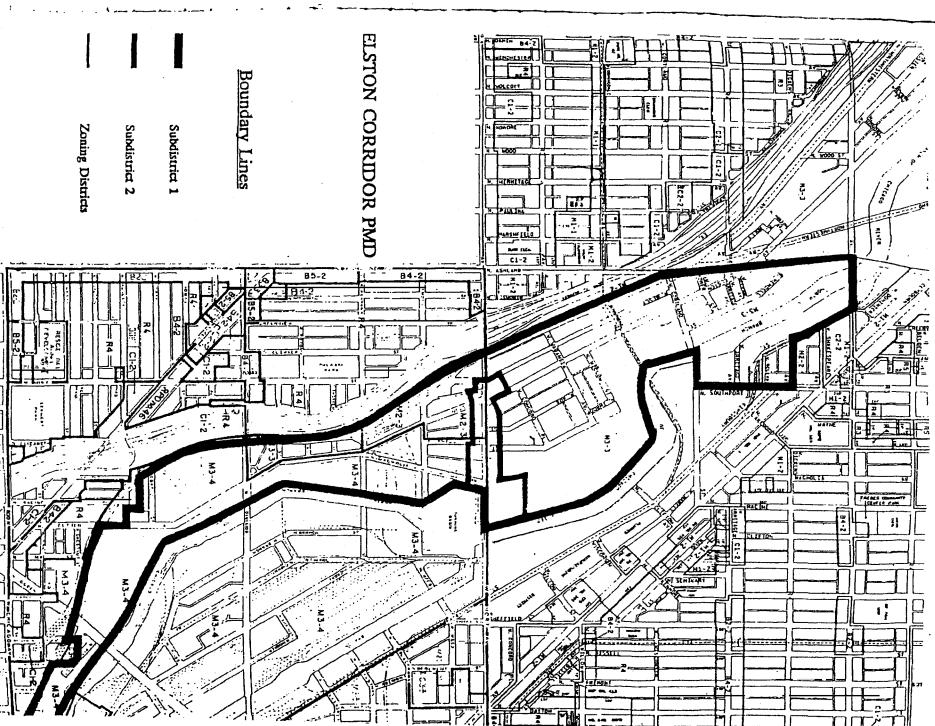
- 2. Vibration: as per Sections 10.6 and 10.6-3 of the Chicago Zoning Ordinance.
- 3. Smoke and Particulate Matter: as per Section 10.7 of the Chicago Zoning Ordinance.
- 4. Toxic Matter: as per Sections 10.8 and 10.8-3 of the Chicago Zoning Ordinance.
- 5. Noxious Odorous Matter: as per Sections 10.9 and 10.9-3 of the Chicago Zoning Ordinance.
- 6. Fire and Explosive Hazards: as per Sections 10.10 and 10.10-3 of the Chicago Zoning Ordinance.
 - 7. Glare and Heat: as per Sections 10.11 and 10.11-3 of the Chicago Zoning Ordinance.

D. Use and Bulk Regulations.

- Regulations Along Residence Boundaries: as per Section 10.13 of the Chicago Zoning Ordinance.
 - 2. Signs: as per Sections 10.14 and 10.14-3 of the Chicago Zoning Ordinance.
- 3. Off-street Loading: as per Sections 10.15 and 10.15-3 of the Chicago Zoning Ordinance.
- 4. Off-street Parking: as per Sections 10.16 and 10.16-3 of the Chicago Zoning Ordinance.
 - 5. Floor Area Ratio: the Floor Area Ratio shall not exceed 3.0.

II. Subdistrict 2

The supplementary use regulations governing Subdistrict 2 of the Elston Corridor Planned Manufacturing District are the same as those that apply to an M1-3 District.



ATTACHMENT 16



Illinois Environmental Protection Agency

P.O. Box 19506, Springfield, Julinois 62794-9506

THOMAS V. SKINNER, DIRECTOR

217/782-2113

TITLE V - CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT and
TITLE I PERMIT¹

PERMITTEE

Horween Leather Company Attn: Arnold Horween, Jr. 2015 North Elston Avenue Chicago, Illinois 60614

Application No.: 95120131

I.D. No.: 031600EET

Applicant's Designation:

Date Received: December 7,1995

Operation of: Leather Tanning and Finishing

Date Issued: December 6, 1999

Expiration Date2: December 6, 2004

Source Location: 2015 North Elston Avenue, Chicago, Cook County

Responsible Official: Arnold Horween, Jr.

This permit is hereby granted to the above-designated Permittee to OPERATE a leather tanning and finishing plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Dan Punzak at 217/782-2113.

Donald E. Sutton, P.E.

Manager, Permit Section

Division of Air Pollution Control

DES:DGP:jar

cc: Illinois EPA, FOS, Region 1

USEPA

This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit.

Except as provided in condition 8.7 of this permit.

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		Defense to Enforcement Actions	
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1.0 SOURCE IDENTIFICATION

1.1 Source

Horween Leather Company 2015 North Elston Avenue Chicago, Illinois 60614 773/772-2026

1.2 Owner/Parent Company

Horween Leather Company 2015 North Elston Avenue Chicago, Illinois 60614

1.3 Operator

Horween Leather Company 2015 North Elston Avenue Chicago, Illinois 60614

Arnold Horween, Jr. 773/772-2026

1.4 General Source Description

Horween Leather Company is located at 2015 North Elston Avenue, Chicago in Cook County. The source processes and finishes leather. Horse hides received are processed through Cordovan Leather Processing into specialty leathers. Cattle hides received at the source are produced into specialty leather and standard leather. All cattle hides are washed, limed, de-haired, and chrome tanned to remove naturally occurring oils which must be replaced. Oils are replaced by fat liquoring or hot stuffing. Leather is then dried, and may undergo buffing, staking, and splitting to prepare it for finishing. In the cattle leather finishing process, various types of leather coatings, or finishes are applied depending upon the type of leather being produced. Coating operation include spraying, machine brushing and hand brushing of coatings onto leather. Drying techniques involve gas fired low heat dryers, steam heated low heat dryers, and hang drying rooms.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

ACMA	Alternative Compliance Market Account
Act	Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors,
	Volume 1, Stationary Point and Other Sources (and
	Supplements A through F), USEPA, Office of Air
-	Quality Planning and Standards, Research Triangle
	Park, NC 27711
ATUs	Allotment Trading Units
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emission Reduction Market System
°F	Degree Fahrenheit
ft	foot
ft ³	cubic foot
gal	Gallon
HAP	Hazardous Air Pollutant
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by
	Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
kg	Kilogram
1	Liter
lb	pound
m	meter
MACT	Maximum Available Control Technology
mcf	Million Cubic Feet
MG	Megagram
mmBtu	Million British thermal units
mo	Month
MW	Mega Watt
NOx	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
ppm	parts per million
PSD .	Prevention of Significant Deterioration
psia	pounds per square inch absolute
SIC	Standard Industrial Classification
SO ₂	Sulfur Dioxide
T	Tons
USEPA	United States Environmental Protection Agency
VOM .	Volatile Organic Material
wt. %	Weight Percent
· · · · · · · · · · · · · · · · · · ·	, -
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

Oxidation Pit
Water Treatment Plant
Two Maintenance Cold Cleaning Tanks

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

Four Hair Removal Mixers

Nine Fat Liquor (Coloring) Mills

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Equipment used for the melting or application of less than 50,000 lbs/year of wax to which no organic solvent has been added [35 IAC 201.210(a)(7)].

Equipment used for the mixing and blending of materials at ambient temperature to make water based adhesives, provided each material mixed or

blended contains less than 5% organic solvent by weight [35 IAC 201.210(a)(9)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).
- 3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.
- 3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.
- 3.3 Addition of Insignificant Activities
 - 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

			Emission
Emission		Date	Control
Unit	Description	Constructed	Equipment
Spray Booth #1	Leather Coating	Pre-1954	Built in Water
(SB-1)	Booth		Curtain
Hot Air Dryer #1	Drying of Coated	Pre-1954	None
(HAD1)	Leather		
Spray Booth #2	Leather Coating	Early	Built in Water
(SB-2)	Booth	1970's	Curtain
Hot Air Dryer #2	Drying of Coated	Early	None
(HAD2)	Leather	1970's	
Brush Finishing	Leather Coating	1958	None
#1 (BF1)			
Finish Dryer	Drying of Coated	1970	None
(FIRD)	Leather	23,0	1.01.0
Brush Finishing	Leather Coating	Pre 1954	None
#2 (BF2)	Beacher coating	110 1554	110110
Stick Dryer	Drying of Coated	Pre 1954	None
Scien Diyer	Leather	116 1334	None
Hang Drying Room	Drying of Damp	Pre 1959	None
#1 (HDR)	Leather	F16 1959	None
Hang Drying Room	Drying of Damp	Pre 1959	None
		PIE 1959	Notie
#2 (HDR)	Leather	Date 1050	XT
Hang Drying Room	Drying of Damp	Pre 1959	None
#3 (HDR)	Leather		
	Miscellaneous		None
	Emission Units,		
	Including Solvent		
	Cleanup		
Pasting Room	Drying Wet Sides of	1960	None
Dryer (PRD)	Leather		
Cordovan Leather	Cordovan Leather	1930	None
Process (CDLP)	Processing		
Buffer #1 (B1)	Sanding of Leather	1960	Baghouse (BH)
Buffer #2 (B2)	Sanding of Leather	1980	Whirl-Wet Dust
			Collector
		,	(WWDC)
Buffer #3 (B3)	Sanding of Leather	1993	Baghouse (BH)
Touch-up Buffer	Touch-up Sanding of	1954	Baghouse (BH)
#1 (TUB1)	Leather		
Touch-up Buffer	Touch-up Sanding of	1954	Baghouse (BH)
#2 (TUB2)	Leather	ļ	
Union Boiler #1	19 mmBtu/hr Gas/Oil	Pre 1967	None
(UB1)	Fired Boiler		
Union Boiler #2	19 mmBtu/hr Gas/Oil	Pre 1967	None
(UB2)	Fired Boiler		
(552)	201101		

			Emission
Emission		Date	Control
Unit	Description	Constructed	Equipment
Kemco Water	17.5 mmBtu/hr Gas	September,	None
Heater (KWH)	Fired Water heater	1989	
Three Natural	Three Natural Gas	Pre-1971	None
Gas Fired Dryers	Fired Units Rated	[į
(HAD2, PRD,	at 2.0 mmBtu/hr, 5		
FIRD)	mmBtu/hr, and 1	ļ	
	mmBtu/hr,		•
	respectively.		

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM and HAP emissions.

5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
 - a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
 - b. i. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].
 - ii. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].
 - iii. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular

basis, as needed, in accordance with the operating program established under 35 IAC 212.309 [35 IAC 212.306].

- c. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
- 5.2.3 The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- 5.2.4 Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:
 - a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
 - b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.
- 5.2.5 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the

applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the nonapplicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

- a. The Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
 - i. Illinois EPA, Compliance Section;
 - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
 - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	99.12
Sulfur Dioxide (SO₂)	3.58
Particulate Matter (PM)	10.62
Nitrogen Oxides (NO _x)	13.63
HAP, not included in VOM or PM	0.00
TOTAL	126.95

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitation for HAPs as listed in Section 112 (b) of the CAA are not set. This source is considered to be major source of HAPs. There are source-wide limitations on VOM in Condition 5.5.1 that include HAP emissions.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

In addition to individual limits in Condition 7.2.6 and 7.3.5, VOM emissions from all units subject to 35 IAC 218 Subpart PP that do not meet the control requirements of 35 IAC 218.926 shall not exceed 5.0 tons/yr. This is to qualify for the provision in 35 IAC 218.920(d).

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

- a. Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.
- b. Total annual VOM emissions on a calendar year basis for all emission units qualifying for the provisions in 35 IAC 218.920(d) which states that the control requirements of Section 218.926 do not apply if total annual VOM emissions from all units not complying with Section 218.926 do not exceed 5.0 tons per calendar year.

5.6.2 Records for Operating Scenarios

N/A

5.6.3 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records

retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

- 5.7 General Reporting Requirements
 - 5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information including HAPs for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

- 5.9 General Compliance Procedures
 - 5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and Compliance Procedures in Section 7 (Unit Specific Conditions) of this permit.

a. Total VOM emissions from the source shall be calculated based on the following:

$$E_T = E_c + E_o$$

Where:

 E_T = Total VOM emissions, in tons/month

E_c = VOM emissions from all coatings, in tons/month

E_o = VOM emissions from all other VOMcontaining materials (e.g., cleanup solvents), in tons/month and

$$E_c = \sum_{i=1}^{n} V_i D_i$$

Where:

 U_i = Usage of coating i, in gallons/month

V_i = Overall VOM content of coating i, in weight percent

D_i = Density of coating i, in lb/gal

and the summation Σ is over all coatings i; and

$$E_o = \sum_{j=1}^n U_j \ V_j \ D_j$$

Where:

 U_j = Usage of VOM-containing material j, in gal/month

 V_j = VOM content of VOM-containing material j, in weight percent

D_j = Density of VOM-containing material j, in lb/gal

and the summation Σ is over all VOM-containing materials j (other than coatings).

b. HAP Emissions = VOM emissions calculated in "a" above times wt. % of each specific HAP material.

Total HAP emissions is sum for all specific HAP materials.

c. Gas combustion emissions for units with firing rate less than 10 mmBtu/hr.

<u>Pollutant</u>	Emission Factor (lb/10 ⁶ ft ³)
•	
NO_x	100.0
CO	21.0
PM	11.9
VOM	2.8
SO ₂	0.6

These are emission factors for uncontrolled natural gas combustion for commercial boilers (0.3

mmBtu/hr - 10 mmBtu/hr), Tables 1.4.1, 1.4.2 and 1.4.3, AP-42, Volume I, Supplement F, October, 1996. VOM emission factor based on Total Organic Carbon (TOC), factor corrected for 52% methane.

d. Gas combustion emissions for units with firing rate between 10 mmBtu/hr and 100 mmBtu/hr.

<u>Pollutant</u>	Emission Factor (lb/10 ⁶ ft ³)
NO_x	140.0
CO	35.0
PM	14.0
VOM	2.8
SO₂	0.6

These are emission factors for uncontrolled natural gas combustion for small industrial boilers (10 mmBtu/hr - 100 mmBtu/hr), Tables 1.4.1, 1.4.2 and 1.4.3, AP-42, Volume I, Supplement F, October, 1996. VOM emission factor based on Total Organic Carbon (TOC), factor corrected for 52% methane.

e. Fuel oil #6 combustion emissions for units with firing rate between 10 mmBtu/hr and 100 mmBtu/hr

Pollutant	Emission Factor (lb/10 ³ gal)
NO _×	55.0
CO	5.0
PM	9.195*+ 3.22
VOM	0.28
SO ₂	1575*

* S indicates the weight% of sulfur in the fuel

These are emission factors for uncontrolled fuel oil #6 combustion for small industrial boilers (10 mmBtu/hr - 100 mmBtu/hr), Tables 1.3.1, 1.3.2, AP-42, Volume I, Supplement F, October, 1996.

f. Particulate matter emissions from buffing operation.

Particulate matter generated by buffers multiplied by the control efficiency of the baghouse and whirl wet dust collector controlling the buffers. (PM generated) x (1 - <u>Control Efficiency</u>)
100

- PM Generated = Amount of leather treated in
 buffers x 0.0067 + amount of
 leather treated in touch-up
 buffers x 0.0033
- g. Particulate matter emissions from spray booth coating operation.

6.0 EMISSION REDUCTION MARKET SYSTEM (ERMS)

6.1 Description of ERMS

The ERMS is a "cap and trade" market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to further reasonable progress toward attainment, as required by Section 182(c) of the Clean Air Act.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Once the ERMS begins, participating sources must hold "allotment trading units" (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set during initial issuance of the sources' CAAPP permits. These allotments are established from historical VOM emissions or "baseline emissions" lowered to provide the emission reduction from stationary sources required for further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source shall have sufficient ATUs in its account to cover its actual VOM emissions during the preceding season. An account's balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the account database. The Illinois EPA will then retire ATUs in sources' accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUS (35 IAC 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emission reductions from an Emission Reduction Generator or an Intersector Transaction (35 IAC 205.500 and 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the Alternative Compliance Market Account (35 IAC 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 IAC 205.630). Note: This narrative description of the ERMS is provided for informational purposes and is not intended to be enforceable as a legal matter. Refer to the ERMS, 35 IAC Part 205, and the provisions thereunder for enforceable requirements of the ERMS.

6.2 Applicability

This source is considered a "participating source" for purposes of the ERMS, 35 IAC Part 205.

- 6.3 Obligation to Hold Allotment Trading Units (ATUs)
 - a. Pursuant to 35 IAC 205.150(c)(1) and 205.720, and as further addressed by Condition 6.8, as of December 31 of each year, this source shall hold ATUs in its account in an amount not less than its VOM emissions during the preceding seasonal allotment period (May 1 September 30) not including VOM emissions from the following, or the source shall be subject to "emissions excursion compensation," as described in Condition 6.4.
 - i. VOM emissions from insignificant units and activities as identified in Section 3 of this permit, in accordance with 35 IAC 205.220;
 - ii. Excess VOM emissions associated with startup, malfunction or breakdown of an emission unit as authorized elsewhere in this permit, in accordance with 35 IAC 205.225;
 - iii. Excess VOM emissions to the extent allowed by a Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3);
 - iv. Excess VOM emissions that are a consequence of an emergency as approved by the Illinois EPA, pursuant to 35 IAC 205.750; and
 - v. VOM emissions from certain new and modified emission units as addressed by Section 6.7(b), if applicable, in accordance with 35 IAC 205.320(f).
 - b. Notwithstanding the above condition, in accordance with 35 IAC 205.150(c)(2), if a source commences operation of a major modification, pursuant to 35 IAC Part 203 on or after May 1, 1999, the source shall hold ATUs in an amount not less than 1.3 times its seasonal VOM emissions attributable to such major modification during the preceding seasonal allotment period, determined in accordance with the construction permit for such major modification or applicable provisions in Section 7.0 of this permit.

6.4 Market Transaction

a. The source shall apply to the Illinois EPA for and obtain authorization for a Transaction Account prior

to conducting any market transactions, as specified at 35 IAC 205.610(a).

- b. The Permittee shall promptly submit to the Illinois EPA any revisions to the information submitted for its Transaction Account, pursuant to 35 IAC 205.610(b).
- c. The source shall have at least one account officer designated for each of its Transaction Accounts, pursuant to 35 IAC 205.620(a).
- d. Any transfer of ATUs to or from the source to or from another source or general participant must be authorized by a qualified Account Officer designated by the source and approved by the Illinois EPA in accordance with 35 IAC 205.620 and the transfer must be submitted to the Illinois EPA for entry into the Transaction Account database.

6.5 Emission Excursion Compensation

Pursuant to 35 IAC 205.720, if the source fails to hold ATUs in accordance with Condition 6.3, it shall provide emissions excursion compensation in accordance with the following:

- a. Upon receipt of an Excursion Compensation Notice issued by the Illinois EPA, the source shall purchase ATUs from the ACMA in the amount specified by notice, as follows:
 - The purchase of ATUs shall be in an amount equivalent to 1.2 times the emissions excursion; or
 - ii. For the second consecutive seasonal allotment period in which an emission excursion occurs, the source shall purchase ATUs in an amount equivalent to 1.5 times the emissions excursion.
- b. If requested in accordance with paragraph (c) below or in the event that the ACMA balance is not adequate to cover the total emissions excursion amount, the Illinois EPA will deduct ATUs equivalent to the specified amount or any remaining portion thereof from the ATUs to be issued to the source for the next seasonal allotment period.
- c. Pursuant to 35 IAC 205.720(c), within 15 days after receipt of an Excursion Compensation Notice, the Permittee may apply to the Illinois EPA to request

that ATUs in an amount equivalent to the amount specified be deducted from the source's next seasonal allotment by the Illinois EPA, rather than purchased from the ACMA.

6.6 Ouantification of Seasonal VOM Emissions

a. The methods and procedures specified in Section 5 and 7 of this permit for determining VOM emissions and compliance with VOM emission limitations shall be used for determining seasonal VOM emissions for purposes of the ERMS, with the following exceptions [35 IAC 205.315(b)]:

No exceptions

- b. The Permittee shall report emergency conditions at the source to the Illinois EPA in accordance with 35 IAC 205.750, if the Permittee intends to deduct VOM emissions in excess of the technology-based emission rates which are achieved during normal operating conditions that are attributable to the emergency from the source's seasonal VOM emissions for purposes of the ERMS. These reports shall include the information specified by 35 IAC 205.750(a), and shall be submitted in accordance with the following:
 - i. An initial emergency condition report within two days of the time when such excess emissions occurred due to the emergency; and
 - ii. A final emergency condition report, if needed to supplement the initial report, within 10 days after the conclusion of the emergency.

6.7 Annual Account Reporting

- a. For each year in which the source is operational, the Permittee shall submit, as a component of its Annual Emission Report, seasonal VOM emission information to the Illinois EPA for the seasonal allotment period. This report shall include the following information [35 IAC 205.300]:
 - i. Actual seasonal emissions of VOM from the source;
 - ii. A description of the methods and practices used to determine VOM emissions, as required by this permit, including any supporting documentation and calculations;

- iii. A detailed description of any monitoring methods that differ from the methods specified in this permit, as provided in 35 IAC 205.337 of this Subpart;
- iv. If a source has experienced an emergency, as provided in 35 IAC 205.750, the report shall reference the associated emergency conditions report that has been approved by the Illinois EPA;
- v. If a source's baseline emissions have been adjusted due to a variance, consent order or CAAPP permit compliance schedule, as provided for in 35 IAC 205.320(e)(3), the report shall provide documentation quantifying the excess VOM emissions during the season that were allowed by the Variance, Consent Order, or Compliance Schedule, in accordance with 35 IAC 205.320(e)(3); and
- vi. If a source is operating a new or modified emission unit for which three years of operational data are not yet available, as specified in 35 IAC 205.320(f), the report shall specify seasonal VOM emissions attributable to the new emission unit or the modification of the emission unit.
- b. This report shall be submitted by November 30 of each year, for the preceding seasonal allotment period.

6.8 Allotment of ATUs to the Source

- a. i. The allotment of ATUs to this source is 281 ATUs per seasonal allotment period.
 - ii. This allotment of ATUs reflects the Illinois EPA's determination that the source's baseline emissions were 30.32 tons.
 - iii. The source's allotment reflects 88% of the baseline emissions (12% reduction) except for the VOM emissions from specific emission unit excluded from such reduction, pursuant to 35 IAC 205.405 including units complying with MACT or using BAT, as identified in Condition 6.11 of this permit.

- iv. ATUs will be issued to the source's Transaction Account by the Illinois EPA annually. These ATUs will be valid for the seasonal allotment period following issuance and, if not retired in this season, the next seasonal allotment period.
- v. Condition 6.3(a) becomes effective beginning in the seasonal allotment period following the initial issuance of ATUs by the Illinois EPA into the Transaction Account for the source.
- Contingent Allotments for New or Modified Emission Units

Not applicable.

- c. Notwithstanding the above, part or all of the above ATUs will not be issued to the source in circumstances as set forth in 35 IAC Part 205, including:
 - i. Transfer of ATUs by the source to another participant or the ACMA, in accordance with 35 IAC 205.630;
 - ii. Deduction of ATUs as a consequence of emission excursion compensation, in accordance with 35 IAC 205.720; and
 - iii. Transfer of ATUs to the ACMA, as a consequence of shutdown of the source, in accordance with 35 IAC 205.410.

6.9 Recordkeeping for ERMS

The Permittee shall maintain copies of the following documents as its Compliance Master File for purposes of ERMS [35 IAC 205.700(a)]:

- a. A copy of its seasonal component of the Annual Emission Report;
- Information on actual VOM emissions, as specified in detail in Sections 5 and 7 of this permit and Condition 6.6(a); and
- c. Copies of any transfer agreements for the purchase or sale of ATUs and other documentation associated with the transfer of ATUs.

6.10 Federal Enforceability

Section 6 becomes federally enforceable upon approval of the ERMS by USEPA as part of Illinois' State Implementation Plan.

6.11 Exclusions from Further Reductions

- a. VOM emissions from the following emission units, if satisfying subsection (a)(1), (a)(2), or (a)(3) prior to May 1, 1999, shall be excluded from the VOM emissions reductions requirements specified in IAC 205.400(c) and (e) as long as such emission units continue to satisfy subsection (a)(1), (a)(2), or (a)(3) [35 IAC 205.405(a)]:
 - Emission units that comply with any NESHAP or MACT standard promulgated pursuant to the CAA;
 - ii. Direct combustion emission units designed and used for comfort heating purposes, fuel combustion emission units and internal combustion engines; and
 - iii. An emission unit for which a LAER demonstration has been approved by the Illinois EPA on or after November 15, 1990.

The source has demonstrated in their ERMS application and the Illinois EPA has determined that the following emission units qualifies for exclusion from further reductions because they meet the criteria as indicated above [35 IAC 205.400(a) and (c)]:

Combustion Units

b. VOM emissions from the emission units using BAT for controlling VOM emissions, prior to May 1, 1999, shall not be subject to the VOM emissions reductions requirements specified in IAC 205.400(c) or (e) as long as such emission unit continues to use such BAT [35 IAC 205.405(b)].

The source has demonstrated in their ERMS application and the Illinois EPA has determined that the following emission units qualifies from further reductions because these emission units are BAT for controlling VOM emissions as indicated above [35 IAC 205.400(b) and (c)]:

Speciality Leather Coating

7.0 UNIT SPECIFIC CONDITIONS

- 7.1 Unit 1 Spray Booth #1 for leather coating with a hot air dryer.
 - Unit 2 Spray Booth #2 for leather coating with a hot air dryer.
 - Unit 3 Brush finishing #1 for leather coating with a dryer.
 - Unit 4 Brush finishing #2 for leather coating with a stick dryer.
 - Unit 5 Hang Drying Room #1 (HDR)
 - Unit 6 Hang Drying Room #2 (HDR)
 - Unit 7 Hang Drying Room #3 (HDR)

Miscellaneous Emission Units Including Equipment Cleanup with Solvents

7.1.1 Description

The Permittee finishes leather (specialty and standard leather). After preliminary preparation for the finishing process, various types of coatings or finishes are applied depending upon the types of leather being produced. Coating operations include spraying, machine brushing and hand brushing of coatings unto leather. Drying techniques involve gas fired dryers, steam heated low heat dryers and hang drying rooms (hang drying rooms are also used for drying damp leather). Miscellaneous emission units which includes solvent cleanup is referenced here but the solvents may also be used on the equipment in Sections 7.2 and 7.3.

7.1.2 List of Emission Units and Pollution Control Equipment

		Emission
Emission Unit	Description	Control
		Equipment
Spray Booth #1 with	Leather Coating	Built in
Hot Air Dryer #1		Water Curtain
(SB-1, HAD1)		for the Spray
		Booth

		Emission
Emission Unit	Description	Control
		Equipment
Spray Booth #2 with	Leather Coating	Built in
Hot Air Dryer #2		Water Curtain
(SB-2, HAD2)	·	for the Spray
		Booth
Brush Finishing #1	Leather Coating	None
with Finish Dryer		
(BF1, FIRD)		
Brush Finishing #2	Leather Coating	None
with Stick Dryer		
(BF-2, SD)		
Hang Drying Room #1	Drying of Damp	None
(HDR)	Leather	•
Hang Drying Room #2	Drying of Damp	None
(HDR)	Leather	
Hang Drying Room #3	Drying of Damp	None
(HDR)	Leather	
	Miscellaneous	None
	Emission Units,	
	Including	
	Solvent Cleanup	

7.1.3 Applicability Provisions and Applicable Regulations

- a. An "affected coating operation" for the purpose of these unit specific conditions is a leather coating operation that includes the spray booths, brush finishing, dryers and hang drying rooms. As of the "date issued" as shown on page 1 of this permit, the affected coating operations are identified in Condition 7.1.2.
- b. The affected coating operation is subject to the limits identified in Condition 5.2.2 a and c.
- c. The spray booths in the affected coating operation at the source are subject to 35 IAC 212.321(a), which requires that:
 - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or

premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

ii. The emissions of particulate matter into the atmosphere in any one hour period from the spray booths shall not exceed the allowable emission rates specified in the following equation

 $E = A(P)^B$

Where:

- P = *Process weight rate; and,
 E = Allowable emission rate; and,
- * For spray booths the process weight rate is the weight of the coating only.
- 1. For process weight rates up to 408 MG/hr (450 T/hr): .

	<u>Metric</u>	English	
P	Mg/hr	T/hr	
E	kg/hr	lbs/hr	
A	1.214	2.54	
В	0.534	0.534	

Where:

- P = Process weight rate in metric or English tons per hour, and
- E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.321].
- iii. The brush finishing, hot air dryers, and hang drying rooms are not considered to be PM emitting units.
- d. The affected coating operation at the source is subject to 35 IAC 218.926(b)(2) for application of coatings to leather which provides that:
 - i. The VOM contained in stain coating, other than stain coatings applied to specialty

leather, as applied at the source in any consecutive 12 month period shall not exceed 10 tons.

ii. For application of coatings to specialty leather, the total VOM content of all coatings, as applied to a category of specialty leather, shall not exceed 38 lbs per 1000 square feet of such specialty leather produced, determined on a monthly basis. The determination shall be made as follows:

C = E/A

Where:

- C = The VOM contained in all coatings
 applied to a category of specialty
 leather in units of lbs/square feet;
- E = The total VOM content of all coatings applied to the category of specialty leather during each month in units of lbs determined as the sum of the VOM content of each coating applied during the month to such leather;
- A = The total area of the category of specialty leather produced in the month in units of square feet, determined as the sum of the area of each type of leather item produced during the month based on the number of such items produced and the area of such item.
- iii. For application of coatings to standard
 leather (non-stain operation), the VOM
 content of each coating shall not exceed
 0.42 kg VOM/1 (3.5 lbs VOM/gal) of coating
 as applied.
- iv. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composites.

e. The specialty leather coating, stain coating to standard leather, and miscellaneous emission units which includes equipment cleanup with solvents at the source are subject to 35 IAC 218.301 which requires that:

The Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from the individual units used for production of specialty leather and application of stain coating to standard leather. If no odor nuisance exists the limitation shall apply only to photochemically reactive material as defined in 35 IAC 211.4690.

f. The miscellaneous emission units, excluding equipment cleanup with solvents, qualifies for the provision in 35 IAC 218.920(d) which states that no limit under PP shall apply to emission units with emissions of VOM to the atmosphere to 10 ton per year if the total emissions from such emission units not complying with Section 218.926 does not exceed 5.0 tons per calendar year.

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected coating operation for standard leather coating is not subject to 35 IAC 218.301, use of organic material, pursuant to 35 IAC 218.926 (b) (2) (C) (i), Exemption From General Rule on Use of Organic Material which excludes affected coating operation for standard leather from this requirement.
- b. The affected coating operation for stain coating to leather is not subject to 35 IAC
 218.926(b)(2)(C) for application of coatings to leather, which excludes coatings complying with 35 IAC 218.926(b)(2) by means of Section
 218.926(b)(2)(A). [See Condition 7.1.3(d)(i)]
- c. The affected coating operation for specialty leather coating is not subject to 35 IAC 218.926(b)(2)(C) for application of coatings to leather, which excludes coatings complying with 35 IAC 218.926(b)(2) by means of Section 218.926(b)(2)(B). [See Condition 7.1.3(d)(ii)]
- d. The cleanup solvent operations are not subject to the control requirements of 35 IAC 218.926

pursuant to the exemption in 35 IAC 218.920(b)(2)(B).

7.1.5 Operational and Production Limits and Work Practices

None

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected coating operation is subject to the following:

None

7.1.7 Testing Requirements

Testing for VOM content of coatings shall be performed as follows [35 IAC 218.105(a), 218.928, and Section 39.5(7)(b) of the Act]

- a. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings used in the affected coating operation shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a).
 - i. The VOM content of representative coatings "as applied" shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 218.105(a)
 - ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.1.9(a) directly reflect the application of such material and separately account for any additions of solvent [35 IAC 218.105(a)].
- b. If a request for testing has not been made, the VOM content provided by the coating supplier may be used, i.e. formulation data.

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating operation to demonstrate compliance with Conditions 5.5.1 and 7.1.3 of this section, pursuant to Section 39.5(7)(b) of the Act:

- a. i. The name, identification number and type of each coating as applied in the affected leather coating operation;
 - ii. For specialty leather coating, records of the specialty leather produced;
 - iii. For specialty coatings, stains for specialty coatings, and standard leather coatings, the weight of VOM per volume and the volume of each coating as applied in the affected leather coating operation on a monthly basis;
 - iv. The production of specialty leather in square feet on a monthly basis, calculated as follows: Monthly number of sides produced multiplied by the square feet of leather per side (which is based on a rolling 5 year average production measured in square feet);
 - v. For the specialty leather coating and stain coating, a demonstration that the leather coating operation is complying with the requirement of specialty and stain coatings as required by Condition 7.1.3 (d) (i) and (ii) should be made. This should be accompanied by the calculations by which demonstration of compliance is made and should be kept on file at the source; and
 - vi. Total VOM emissions from the use of all coatings used in the affected leather coating operation in tons/month and tons/year. This shall be calculated using

the data from Condition 7.1.9 (a)(i) and (iii).

- b. i. Name and identification of each material used in each miscellaneous emission unit and of each cleanup solvent used;
 - ii. VOM content of each material used in each miscellaneous emission unit and of each cleanup solvent used in weight percent;
 - iii. Amount of each material used in each miscellaneous emission unit and of each cleanup solvent used in and tons/year; and
 - iv. VOM emissions from the use of cleanup solvents in tons/year. This shall be calculated using the data from Condition 7.1.9 (b) (i), (ii) and (iii).
- c. Records of the testing of VOM and HAP content (wt. %) of each coating as tested pursuant to the conditions of this section, which include the following [Section 39.5(7)(e) of the Act]:
 - i. Identification of material tested;
 - ii. Results of analysis;
 - iii. Documentation of analysis methodology; and
 - iv. Person performing analysis.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected coating line with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Pursuant to 35 IAC 218.991 (d)(3)(A), the Permittee shall notify the Illinois EPA of any record showing violation of Condition 7.1.3 (d) within 30 days following the occurrence of such violation.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected leather coating operation without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Usage of coatings at this source with various VOM contents provided that the materials are tested in accordance with the conditions of this section, the source wide emission limitations in Condition 5.5.1 are not exceeded and the affected leather coating operation remain in compliance.

7.1.12 Compliance Procedures

- a. Compliance with the particulate matter limitations in this section is assured and achieved by the work-practices inherent in operation of the affected leather coating operation.
- b. Compliance of coatings and miscellaneous emission units, including solvent cleanup with the VOM emission limitations shall be determined from the recordkeeping required by this section.
- c. See Condition 5.9.1 for emission calculation procedures.

7.2 Unit 8 - Pasting Room Dryer (PRD)

7.2.1 Description

The Permittee finishes leather. The pasting room dryer is a five zone drying oven used for drying wet sides of leather prior to finishing. Leather sides are pasted to solid 6 ft x 12 ft frames which hangs from a conveyor and slowly progresses through the five zones of the dryer. The leather leaving the pasting room dryer is typically hung in the hang drying rooms and subsequently sent to the leather finishing department. The hang drying rooms are also used to hang dry and cure leather which may be in various stages of production (See Condition 7.1.2). No PM is generated by the process.

7.2.2 List of Emission Units and Pollution Control Equipment

		Emission
İ		Control
Emission Unit	Description	Equipment
Pasting Room	Drying Wet Sides of	None
Dryer (PRD)	Leather	

7.2.3 Applicability Provisions and Applicable Regulations

- a. The pasting room dryer is subject to the limits identified in Conditions 5.2.2.a. and 5.2.2.c.
- b. The pasting room dryer at the source is subject to 35 IAC 218.301 which requires that: The Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from the subject pasting room dryer. If no odor nuisance exists the limitation shall apply only to photochemically reactive material as defined in 35 IAC 211.4690.
- c. The pasting room dryer is subject to 35 IAC 218 Subpart PP. Pursuant to 35 IAC 218.920(d), no limits under Subpart PP shall apply to emission units with emissions of VOM less than or equal to 1.0 ton/yr if the total emissions from such emission units not complying with Section 218.926 do not exceed 5.0 tons per calendar year. The pasting room dryer is therefore exempt from the control requirements of 35 IAC 218.926. The

limit in 7.2.6 is therefore necessary to qualify for that exemption.

7.2.4 Non-Applicability of Regulations of Concern

N/A

7.2.5 Operational and Production Limits and Work Practices

None

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected glue line is subject to the following:

VOM emissions from the pasting room dryer shall not exceed the following limits:

VOM Emissions (T/Calendar Year)

0.25

The emission limits are based on the maximum VOM containing pasting material used and the maximum VOM content allowed. Compliance with annual limits shall be determined on a calendar year basis.

7.2.7 · Operating Requirements

None

7.2.8 Inspection Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the pasting room dryer to demonstrate compliance with Conditions 5.5.1, 7.2.3 and 7.2.6 pursuant to Section 39.5(7)(b) of the Act:

a. i. The name and identification number of each VOM containing pasting material used;

- ii. The usage of each pasting material in units of tons/year;
- iii. VOM and HAP content of each pasting material in weight percent.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected pasting room dryer with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

- a. Compliance with the limit in Condition 7.2.3(b) and (c) is assured based on the low annual emission rate allowed by Condition 7.2.6.
- b. See Condition 5.9.1(a) for emission calculation procedures.

7.3 Unit 9 - Cordovan Leather Processing (CDLP)

7.3.1 Description

The Permittee processes Cordovan leather. A VOM-containing solvent is utilized to prepare or "cut" anhydrous dyes which are machine brushed onto unprocessed leather horse hides. No top coats or other VOM-containing materials are utilized within Cordovan leather processing. The process does not emit PM. The process consists of a number of steps, each of which is considered as an emission unit although the entire process may be referred to as a unit.

7.3.2 List of Emission Unit and Pollution Control Equipment

		Emission
·		Control
Emission Unit	Description	Equipment
Cordovan Leather	Processing of Cordovan	None
Processing	Leather	
(CDLP)		

7.3.3 Applicability Provisions and Applicable Regulations

- a. An "affected Cordovan leather process" for the purpose of these unit specific conditions is a process identified in Condition 7.3.2.
- b. The affected Cordovan leather process is subject to the limits in Condition 5.2.2(a) and 5.2.2(c).
- c. The affected Cordovan leather process is subject to 35 IAC 218 Subpart PP. Pursuant to 35 IAC 218.920(d), no limits under Subpart PP shall apply to emission units with emissions of VOM less than or equal to 1.0 ton/yr if the total emissions from such emission units not complying with Section 218.926 does not exceed 5.0 tons per calendar year. The Cordovan leather process, which consists of a number of emission units, is therefore exempt from the control requirements of Section 218.926. Condition 7.3.5 is necessary in order to qualify for that exemption.
- d. The affected Cordovan leather processing is subject to 35 IAC 218.301 which requires that:

The Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from each emission unit of the subject leather processing. If no odor nuisance exists, the limitation shall apply only to photochemically reactive material as defined in 35 IAC 211.4690.

7.3.4 Non-Applicability or Regulations of Concern

N/A

7.3.5 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the Cordovan leather processing is subject to the following:

The VOM emissions from the Cordovan leather processing shall not exceed the following limits:

VOM Emissions (Ton/Calendar Year)

3.0

The emission limits are based on the VOM usage and content of the solvent utilized.

Note that although the emissions are expressed as one limit, Cordovan Leather processing has a number of individual process steps and each is considered to be an emission unit. Thus emissions from any unit are under 1.0 ton/yr.

7.3.6 Operating Requirements

None

7.3.7 Inspection Requirements

None

7.3.8 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the Cordovan leather processing to demonstrate compliance with Conditions 5.5.1, 7.5.3 and 7.5.5 pursuant to Section 39.5(7)(b) of the Act:

- a. i. The name and identification number of the VOM containing solvent used;
 - ii. The usage of solvent in units of tons/year; and
 - iii. Density and VOM content in weight percent of the solvent utilized.
- b. VOM emissions (ton/mo).

7.3.9 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the Cordovan leather process with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

Exceedance of the limit in Condition 7.3.5.

7.3.10 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.11 Compliance Procedures

- a. If the annual emissions are less than the limit in Condition 7.3.5, compliance with Condition 7.3.3(c) and (d) can be assumed.
- b. See Condition 5.9.1 for emission calculation procedures.

7.4 Unit 10 - Buffer #1 Control - Baghouse (BH)

Unit 11 - Buffer #2

Control - Whirl wet dust collector (WWDC)

Unit 12 - Buffer #3 Control - Baghouse (BH)

Unit 13 - Touch up Buffer #1

Control - Baghouse (BH)

Unit 14 - Touch up Buffer #2

Control - Baghouse (BH)

7.4.1 Description

The Permittee finishes leather. The buffers are belt sanders for buffing leather. The two buffers #1 and #3 and the touch up buffers discharge through the same baghouse, and buffer #2 discharges through the whirl wet dust collector. These units only emit PM.

7.4.2 List of Emission Units and Pollution Control Equipment

		Emission
	·	Control
Emission Unit	Description	Equipment
Buffer #1	Buffing (Sanding)	Baghouse (BH)
(B1)	of Leather	
Buffer #2	Buffing (Sanding)	Whirl Wet Dust
(B2)	of Leather	Collector
		(WWDC)
Buffer #3	Buffing (Sanding)	Baghouse (BH)
(B3)	of Leather	
Touch-Up	Buffing (Sanding)	Baghouse (BH)
Buffer #1	of Leather	
(TUB1)	·	
Touch-Up	Buffing (Sanding)	Baghouse (BH)
Buffer #2	of Leather	: "
(TUB2)		

7.4.3 Applicability Provisions and Applicable Regulations

a. An "affected buffer" for the purpose of these unit specific conditions is a buffer or a touch up buffer.

- b. The affected buffers are subject to the limits identified in Condition 5.2.2.a and 5.2.2.c.
- c. The affected buffers (B2 and B3) at the source are subject to 35 IAC 212.321(a), which requires that:
 - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
 - ii. The emissions of particulate matter into the atmosphere in any one hour period from the affected buffers (B2 and B3) shall not exceed the allowable emission rates specified in the following equation

$$E = A(P)^B$$

Where:

P = Process weight rate; and,

E = Allowable emission rate; and,

For process weight rates up to 408 MG/hr (450 T/hr):

<u>Metric</u>		<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
Α	1.214	2.54
В	0.534	0.534

Where:

P = Process weight rate in metric or English tons per hour, and E = Allowable emission rate in kilograms or pounds per hour.

[35 IAC 212.321]

- d. The affected buffer (B1) and the two touch up buffers (TUB1 and TUB2) at the source are subject to 35 IAC 212.322(a), which requires that:
 - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced prior to April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].
 - ii. The emissions of particulate matter into the atmosphere in any one hour period from the affected buffer and touch up buffers shall not exceed the allowable emission rates specified in the following equation

 $E = C+A(P)^B$

Where:

P = Process weight rate; and,

E = Allowable emission rate; and,

For process weight rates up to 27.2 MG/hr (30 T/hr):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
В	0.534	0.534
C	0 0	0.0

Where:

P = Process weight rate in metric or English tons per hour, and

- E = Allowable emission rate in kilograms or pounds per hour [35 IAC 212.322].
- 7.4.4 Non-Applicability of Regulations of Concern

N/A

7.4.5 Control Requirements

- a. The Permittee shall operate, maintain, and replace the filters for the baghouse in a manner that assures compliance with the conditions of this section.
- b. An adequate inventory of spare filters shall be maintained.

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected buffers are subject to the following:

There are no specific emission limitations for the buffers, however, there are source wide emission limitations in condition 5.5 that include these buffers.

7.4.7 Operating Requirements

None

7.4.8 Inspection Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items:

None

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of an affected buffers with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act.
Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

Exceedance of the regulatory requirements in Condition 7.4.3.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

Compliance with Condition 7.4.3(c) and (d) in this section is assured and achieved by the proper operation and maintenance of the baghouse and whirl wet dust collector and the work practices inherent in operation of the affected buffers.

- 7.5 Unit 15 Boiler #1 (UB1) Natural Gas or fuel oil #6
 Fired Boiler, with a maximum design heat input
 capacity of 100 mmBtu/hr or less, but greater
 than or equal to 10 mmBtu/hr and constructed,
 modified or reconstructed before June 9, 1989.
 - Unit 16 Boiler #2 (UB2) Natural gas or fuel oil #6
 Fired Boiler, with a maximum design heat input
 capacity of 100 mmBtu/hr or less, but greater
 than or equal to 10 mmBtu/hr and constructed,
 modified or reconstructed before June 9, 1989
 - Unit 17 Kemco Water Heater (KWH) Natural Gas Fired
 Boiler, with a maximum design heat input capacity
 of 100 mmBtu/hr or less, but greater than or
 equal to 10 mmBtu/hr and constructed, modified or
 reconstructed after June 9, 1989.
 - Unit 18 Three natural gas fired units, each with maximum design heat input capacities of 20 mmBtu/hr or less, but greater than or equal to 0.3 mmBtu/hr and constructed, modified or reconstructed before June 9, 1989.

7.5.1 Description

Natural gas or fuel oil #6 fired boilers are used to produce steam for heat generation at the source.

Natural gas fired Kemco water heater is used to heat water. The three natural gas fired dryers are used to dry leather.

7.5.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Boiler #1 (UB1)	Natural Gas or Fuel Oil #6 Fired Boiler Rated at 19 mmBtu/hr Firing Rate, and Constructed Prior to June 9, 1989.	None
Boiler #2 (UB2)	Natural Gas or Fuel Oil #6 Fired Boiler Rated at 19 mmBtu/hr Firing Rate, and Constructed Prior to June 9, 1989.	None

Emission		Emission Control
Unit	Description	Equipment
Water Heater (KWH)	Natural Gas Fired Heater Rated at 17.5 mmBtu/hr Firing Rate, and Constructed after June 9, 1989	None
Three Natural Gas Fired Dryers (HAP2, PRD, FIRD)	Three Natural gas fired units rated at 2.0 mmBtu/hr, 5 mmBtu/hr and 1 mmBtu/hr, respectively and constructed prior to June 9, 1989.	None

7.5.3 Applicable Provisions and Regulations

- a. An affected boiler for the purpose of these unit specific conditions is a steam generating unit that is fired with natural gas or fuel oil #6 with a maximum heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr. Boilers (UB1 and UB2) were constructed prior to June 9, 1989, hence they are not subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc. As of the "date issued" as shown page 1 of this permit, the affected boilers are identified in Condition 7.4.2.
- An affected "water heater" for the purpose of this unit specific conditions is a fuel combustion unit fired with natural gas with a maximum heat input capacity of 100 mmBtu/hr or less, but greater than or equal to 10 mmBtu/hr. The water heater (KWH) was constructed after June 9, 1989. As a consequence, because the water heater was constructed after June 9, 1989 and the firing rate of the affected water heater is less than 100 mmBtu/hr, the affected water heater is potentially subject to the Standards of Performance for Small Industrial - Commercial -Institutional Steam Generating Units, 40 CFR 60, Subpart Dc. But, no substantive standards in 40 CFR 60, Subpart Dc apply to natural gas-fired units. The unit is subject to notification requirements in Condition 7.5.10.
- c. The affected dryers for the purpose of these affected unit specific conditions are existing

fuel combustion units fired with natural gas, each with maximum heat input capacities of 10 mmBtu/hr or less, but greater than or equal to 0.3 mmBtu/hr.

- d. The affected boilers, water heater, and dryer are subject to the limits identified in Conditions 5.2.2.a and 5.2.2.c.
- e. The emission of carbon monoxide (CO) into the atmosphere from the affected boilers and water heater with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
- f. For the affected boilers when using fuel oil #6, the emissions of sulfur dioxide shall not exceed 1.0 lb/mmBtu of actual heat input [35 IAC 214.161].
- g. For the affected boilers when using fuel oil #6, the emissions of particulate matter shall not exceed 0.1 lbs/mmBtu of actual heat input [35 IAC 212.206].

7.5.4 Non-Applicability of Regulations of Concern

- a. The affected boilers, water heater, and dryers are not subject to 35 IAC 217.141, because the actual heat input of each the affected boilers, water heater, and dryers is less than 73.2 MW (250 mmBtu/hr).
- b. Pursuant to 35 IAC 218.303, the affected boilers, water heater, and dryers, i.e., fuel combustion emission units, are not subject to 35 IAC 218.301, Use of Organic Material.
- c. There are no applicable requirements for particulate matter or sulfur dioxide for the boilers, water heater, or dryers when firing natural gas.
- d. The New Source Performance Standards 40 CFR 60, Subpart Dc are not applicable to the boilers (UB1 and UB2), nor to the dryers, as the boilers and dryers were constructed prior to June 9, 1989. As well, 40 CFR 60, Subpart Dc is not applicable to the Kemco water heater, as no substantive standards of this regulation apply to the

affected natural gas fired heater, but records are required to verify that only natural gas was used as the fuel.

- e. The affected dryers are not subject to 35 IAC 216.121 because the actual heat input of each of the affected dryers is less than 2.9 MW (10 mmBtu/hr).
- 7.5.5 Operational and Production Limits and Work Practices
 - a. i. Natural gas or fuel oil #6 shall be the only fuel burned in the affected boilers.
 - A. The Permittee shall not use residual fuel oil (Grade No. 6 fuel) in the affected boilers with a sulfur content greater than that given by the formula below:

Maximum wt.% sulfur = (0.00005) x (gross heating value of oil in Btu/lb)

- b. Natural gas shall be the only fuel burned in the affected water heater and dryers.
- c. The natural gas consumption for the affected units at this facility combined shall not exceed the following limits:

Natural	Gas	Consumption
	(mci	(/yr)

175

These limitations are set for the purpose of establishing emissions for fees based on the maximum fuel usage and are not federally enforceable.

d. The fuel oil #6 consumption for affected boilers shall not exceed the following limits:

Fuel	Oil	#6	Consumption
		(Ga]	/yr)

50,000

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5.1, the affected boilers are subject to the following:

There are no specific emission limitations for the boilers, however, there are source wide emission limitations in Condition 5.5 that include this boiler.

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items to demonstrate compliance with Conditions 5.5.1, 5.5.3 and 7.4.5, pursuant to Section 39.5(7)(b) of the Act:

- a. Records showing that only natural gas was fired in the water heater (KWH).
- b. Total natural gas usage for the source in mcf/year.
- c. Annual aggregate NO_x , PM, SO_2 , and VOM emissions for the source based on fuel consumption and the applicable emission factors, with supporting calculations.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable control and operating requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act:

If the water heater (KWH) is reconstructed or an operational change made that would increase the emission rate to which a standard would apply, pursuant to 40 CFR 60.7.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

a. Compliance with Condition 7.5.3 is demonstrated under inherent operating conditions of the affected boilers, water heater, and dryers so that no compliance procedures are set in this permit addressing this requirement. See Condition 5.9.1 for emission calculation procedures.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements as of the date the proposed permit for this source was issued. This shield is granted based on the Illinois EPA's review of the permit application for this source and its determination that all applicable requirements are specifically identified in this permit. If the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to the source, the Illinois EPA's written determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after May 12, 1999 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

- 8.4 Operational Flexibility/Anticipated Operating Scenarios
 - 8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes without applying for or obtaining an amendment to this permit, provided that the changes do not constitute a modification under Title I of the CAA, emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change and the Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change [Section 39.5(12)(a) of the Act]. This notice shall:

- a. Describe the physical or operational change;
- b. Identify the schedule for implementing the physical or operational change;
- c. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
- d. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
- e. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

A report summarizing required monitoring as specified in the conditions of this permit, if applicable, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

Monitoring Period

Report Due Date

January - June

September 1

July - December

March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section
Illinois Environmental Protection Agency (MC 40)
Bureau of Air
Compliance Section
P.O. Box 19276

ii. Illinois EPA - Air Regional Field Office

Springfield, Illinois 62794-9276

Illinois Environmental Protection Agency Division of Air Pollution Control Eisenhower Tower 1701 First Avenue Maywood, Illinois 60153

iii. Illinois EPA - Air Permit Section (MC 11)

Illinois Environmental Protection Agency Division of Air Pollution Control Permit Section P.O. Box 19506 Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AR - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

- P.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
- 9.1.2 In particular, this permit does not alter or affect the following:
 - a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
 - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(p)(ii) of the Act]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located

or where records must be kept under the conditions of this permit;

- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters at any location:
 - At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any regulated activity, discharge or emission at the source.
- 9.4 Obligation to Comply With Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports

required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
 - ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment, relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signacure:	
Name:	
Official Title:	
Telephone No.:	
Date Signed:	

DGP:jar

ATTACHMENT 17

HORWEEN LEATHER COMPANY

TANNERS AND CURRIERS 2015 NORTH ELSTON AVENUE CHICAGO, ILLINOIS 60614-3995

> PHONE: 773/772-2026 FAX: 77/772-9235

December 1, 2000

Air and Radiation Docket and Information Center (6102) Attention Docket Number A-99-38, Room M-1500 US Environmental Protection Agency 1200 Pennsylvania Avenue, NW Washington, DC 20460

Re: Comments Regarding the Environmental Protection Agency's Proposed Rule, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations

Dear Sir or Madam:

The purpose of this letter is to submit Horween Leather Company's (Horween) comments about the Environmental Protection Agency's (USEPA) Proposed Rule for National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations, 40 CFR Part 63 (Proposed Rule). After reviewing the Proposed Rule, Horween has determined that, as proposed, these regulations would have an unwarranted significant negative impact on the continued viability of the company. We hope that after reviewing these comments and comments you receive from other similar leather finishing operations, USEPA will revise the Proposed Rule to regulate Leather Finishing Operations in a way that allows companies to remain in business.

Horween is submitting comments in four areas of the Proposed Rules. First, we ask that USEPA reconsider and increase the HAP emission limit for nonwater-resistant leather to reflect the specialty leather products that Horween manufactures. Second, we ask that the USEPA reconsider and change the Inventory Log recordkeeping requirements to eliminate redundant and excessive recordkeeping requirements for facilities that are subject to a Title V permit. Third, we ask that USEPA reconsider and change the requirement to keep a processed inventory log for facilities subject to comparable Title V permit requirements. Fourth, we ask that USEPA clarify the Maeser Flexes Test Method because the test can only be performed once on a piece of leather. Our specific comments follow with references to the Proposed Rule.

emission limits based on Horween's corrected emission data. As discussed above, Horween was unable to include its more recent HAP emission data after it identified that a portion of its glycol ethers were not included in its nonwater-resistant HAP emission data. Additionally, the exclusion of some of the glycol ethers in the facility's HAP emission calculation may not be unique to Horween and may be a common error in other leather finishing operations' information provided to USEPA during the investigation to establish the Proposed Rule. The result of USEPA's use of inaccurate data may be artificially reducing the proposed HAP emission limits for nonwater-resistant product process operations. Therefore, before finalizing the rule, USEPA should provide an updated list of HAPs to the affected leather finishing operations so that they can recalculate their emissions and submit their recalculations to USEPA to ensure that the database is correct and the proper conclusions are made regarding HAP emission limits.

Next, several leather finishing operations that were included in the development of the Proposed Rule have closed due to the continued deterioration of the leather finishing industry. These companies include Lackawanna Leather Co., Pfister & Vogel, and A.L. Gebhardt; additionally, Volunteer Leather was recently sold to S.B. Foot Tanning. Because USEPA has confidentially coded the data provided by the leather finishing operations while preparing the Proposed Rule, there is no way to tell if the companies that are now out-of-business provided representative information about the leather finishing industry. Therefore, the HAP emission limits from these out-of-business operations should be removed from consideration in the proposed HAP emission limits in the Proposed Rule and USEPA should use the remaining and corrected HAP emission limits when recalculating the MACT floor.

If the recommended changes as outlined above do not substantially raise the nonwater-resistant leather MACT floor determination, Horween cannot comply with the NESHAP Rule, as proposed, because of the required production of our signature type of specialty leathers.

2. If the MACT floor for nonwater-resistant leather is less than 6.0, USEPA should create a sub-category for specialty leather operations

Horween Leather Company has continually produced specialty leathers for a small niche of customers that demand quality. Our CHROMEXCEL™Specialty Leather is hot-stuffed and requires the lacquer emulsion to properly penetrate the oils, fats and greases to achieve color, luster and a rich, oily feel. These inherent production requirements that use higher solvent-based finishes were the subject of Illinois' adoption of amendments to the generally applicable RACT leather coating rule. See 35 IAC §§ 218.926 and 211.6170. Illinois, after thoroughly evaluating the required production needs of specialty leathers with a high oil, fat and grease content, adopted a special subcategory that addresses the production

of CHROMEXCEL MSpecialty Leather by producers such as Horween. This rule allows VOM in the amount of 38 lbs. per 1000 square feet and further provides for an exemption for the stains used on this type of leather. This particular rule was approved by the USEPA and included in the Illinois SIP. During that rulemaking process, the Illinois Environmental Protection Agency agreed that further solvent reductions and add-on control technology were not feasible and would create an undue burden upon Horween Leather Company. Alpha-Gamma, USEPA's consultant for the development of the Proposed Rule, made the same conclusions.

According to Alpha-Gamma's July 19, 2000, memo to Leather Finishing Operations NESHAP Project File, "3.3 . . . the MACT floor must be achievable by all sources within the source category." The memo goes on to state that "5.4 . . processes that require oiling of the leather to obtain performance and aesthetic qualities The use of fatliquor and oil during tanning operations within this leather product process operation requires additional solvent-based finishes, which increases HAP emissions." Moreover, when reviewing Appendix B of the memo, the emissions from Non Water-resistant Leather (sic) have a very wide range of "*" or 2.1 to 10.8, with a high concentration in the 6.0 to 7.0 range (with our corrected emissions of 6.0 factored in). The obvious disparity in these emission limits is likely a result of a specialty leather category that USEPA has identified and should address in any new rule so that Horween, as well as other specialty leather manufacturers, can comply with the NESHAP Rule. Therefore, the USEPA should establish a new category to address specialty leather manufacturers.

Accordingly, Horween requests that the USEPA revise the data used to develop the Proposed Rule to reflect the correct HAP emission limit for Horween, determine if the other facilities have inadvertently underreported HAP emission values, delete the values for those companies no longer in business and calculate a new MACT floor based upon the corrected database. If the corrected MACT floor for nonwater-resistant leather is still below 6.0, Horween requests that USEPA recognize that there is a substantial difference in leather finishing operations that warrants further subcategorization to include a higher number for those leather finishing operations, like Horween, that produce specialty leathers with a high oil, fat and grease content.

II. <u>USEPA Should Reconsider and Change the Inventory Log Recordkeeping</u> Requirements to Eliminate Redundant and Excessive Recordkeeping Requirements

Horween requests that USEPA reconsider and eliminate redundant and excessive Inventory Log recordkeeping requirements for facilities subject to Title V permit requirements. More specifically, Preamble section III. H. states that "[a]n inventory log of finish applications is required to satisfy monitoring requirements of the proposed rule. The required information is as follows: finish usage, HAP content of the finish, date, time, operator, and leather product process operation." 40 CFR § 63.5320(c)(4) requires that a major source:

[k]eep a finish inventory log to record monthly the pounds of each type of finish applied for each leather product process operation and the mass fraction of HAP in each applied finish as specified at § 63.5335(b). You may be required to start recordkeeping prior to the compliance dates specified at § 63.5295.

Furthermore, 40 CFR § 63.5335(b) requires that sources:

[u]se a finish inventory log to record the pounds of each type of finish applied for each leather product process operation and the mass fraction of HAP in each applied finish.

Comments:

According to our Title V - CAAPP Permit and Title I Permit, in-depth recordkeeping is already being required and should be acceptable to satisfy the goals of the Proposed Rule's recordkeeping requirements. The only change to existing permit language that would be required is a minor modification to add HAPs to the permitted limits. The HAPs can be separated by percent of finish usage on each of the four categories of leather. Therefore, creating an inventory log of finish applications should not be required to meet this standard because recordkeeping is already extensive and should not become more of a burden on small businesses. The following, as an example, is extracted from our Permit:

"5.9.1 a. Total VOM emissions from the source shall be calculated based on the following:

 $E_T = E_C + E_O$

Where:

 $E_T = Total VOM emissions, in tons/month$

 $E_C = VOM$ emissions from all coatings, in tons/month

 $E_O = VOM$ emissions from all other VOM-containing materials (e.g., cleanup solvents), in tons/month"

"5.9.1 b, HAP Emissions = VOM emissions calculated in 'a' above times wt. % of each specific HAP material. Total HAP emissions is sum for all specific HAP materials."

"7.1.3 d ii. For application of coatings to specialty leather, the total VOM content of all coatings, as applied to a category of specialty leather, shall not exceed 38 lbs. per 1000 square feet of such specialty leather produced, determined on a monthly basis. The determination shall be made as follows:

C = E/A

Where:

C = The VOM contained in all coatings applied to a category of specialty leather in units of lbs./square feet;

- E = The total VOM content of all coatings applied to the category of specialty leather during each month in units of lbs. determined as the sum of the VOM content of each coating applied during the month to such leather;
- A = The total area of the category of specialty leather produced in the month in units of square feet, determined as the sum of the area of each type of leather item produced during the month based on the number of such items produced and the area of such item."

7.1.9.1.1 "Recordkeeping Requirements

- a. i. The name, identification number and type of each coating as applied in the affected leather coating operation;
 - ii. For specialty leather coating, records of the specialty leather produced;
 - iii. For specialty coatings, stains for specialty coatings, and standard leather coatings, the weight of VOM per volume and the volume of each coating as applied in the affected leather coating operation on a monthly basis;
 - iv. The production of specialty leather in square feet on a monthly basis, calculated as follows: Monthly number of sides produced multiplied by the square feet of leather per side (which is based on a rolling 5 year average production measured in square feet);
 - v. For the specialty leather coating and stain coating, a demonstration that the leather coating operation is complying with the requirement of specialty and stain coatings as required by Condition 7.1.3...."

Because the Permit requirements are similar to the types of records requested in the Proposed Rule, with percentages of finishes used on the four different categories of leather, USEPA should accept the current Title V permit conditions as satisfying the Proposed Rule recordkeeping requirements. Accepting the Title V permitted requirements without adding additional, more burdensome requirements, would eliminate redundancy and excessive recordkeeping.

III. <u>USEPA Should Reconsider and Change the Requirement to Keep a Processed</u> Inventory Log for Facilities Subject to Comparable Title V Permit Requirements

Horween requests that USEPA reconsider and eliminate the requirement to keep a processed inventory log for facilities already subject to comparable Title V permit requirements. More specifically, 40 CFR § 63.5430(f) of the proposed rule requires:

- (1) Dates for each leather product process operation.
- (2) Total surface area of leather processed for each leather product process operation.

Furthermore, 40 CFR § 63.5320(c)(5) requires a source to:

[k]eep a leather processed inventory log to record monthly the surface area of leather processed in 1,000's of square feet for each product process operation as specified at §63.5430(f).

Comments:

As addressed in Section II above, our current Title V Permit already contains the following calculation for determining the leather produced:

"7.1.9.1.1 a. iv. The production of specialty leather in square feet on a monthly basis, calculated as follows: Monthly number of sides produced multiplied by the square feet of leather per side (which is based on a rolling 5 year average production measured in square feet)"

Furthermore, our leather is not measured until it is shipped which allows us to calculate the square footage on a monthly basis. Our current measurement system should satisfy the goals of the Proposed Rule and should be an acceptable method of measurement as opposed to keeping the processed inventory log as required by the Proposed Rule.

IV. <u>USEPA Should Clarify the Maeser Flexes Test Method to Reflect that the Test Can</u> Only be Performed Once on a Piece of Leather.

USEPA should clarify the Maeser Flexes Test Method in the Proposed Rule because the test can only be performed once on a piece of leather. More specifically, 40 CFR § 63.5350(c) states, in pertinent part, "[t]herefore, three sections of leather substrate from at least 12 sides of leather must be tested for a minimum of three times to determine the water-resistant characteristics of the leather."

Comments:

The Maeser Flexes test can only be performed once on a piece of leather, not three times. Therefore, to properly complete the Maeser Flexes test for water-resistant characteristics of the leather, a person should only be required to test three separate sections of the leather substrate from at least 12 sides, one time.

V. Conclusion

For the reasons outlined above, we ask that the USEPA accomplish the following things:

A. Reconsider and increase the HAP emission limit for nonwater-resistant leather to reflect the specialty leather products that Horween manufactures. If, after recalculation, the HAP emission limit for nonwater-resistant leather is still below 6.0, Horween requests that USEPA recognize that there is a substantial difference in its leather finishing operations that warrants further subcategorization to include a higher HAP emission limit for producers of specialty leathers with a high oil, fat and grease content;

- B. Reconsider and change the Inventory Log recordkeeping requirements to eliminate redundant and excessive recordkeeping requirements for facilities that are subject to a Title V permit;
- C. Reconsider and change the requirement to keep a processed inventory log for facilities subject to comparable Title V permit requirements;
- D. Clarify the Maeser Flexes Test Method to reflect that the test can only be performed once on a piece of leather.

Thank you for the opportunity to comment on this Proposed Rule. Please contact me at (773) 772-2026 if I can further clarify the comments that we have provided.

Sincerely,

Julie M. Christensen

Director of Safety and Environmental Compliance

Juli M. Churchesser

cc: Mr. William Schrock

ALPHA GAMMA



FACSIMILE TRANSMITTAL

PLEASE DELIVER IMMEDIATELY UPON RECEIPT

DATE: 08-06-1999 .
TO: JULIE CHRISTENSEN
COMPANY: HORWELN LEATHER
FAX NUMBER: 773-772 - 9235
FROM: SIM SHILLING
COMMENTS: HOPE THIS HELPS
This transmittal (including cover sheet) consists of pages.

If you receive this facsimile in error, please notify Alpha-Gamma by telephone at (919) 954-0033.

Phone 919-954-0033 ● Fax 919-954-0379 900 Ridgefield Drive, Suite 350 Raleigh, NC 27609 printh-1999 local

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28 Ethylene glycol monobutyl ether acetate
28 Ethylene glycol monomethyl ether acetate
28 Dicthlyene glycol diethyl ether.
28 Ethylene glycol monoethyl ether acetate
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