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SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF ALAMEDA

CENTER FOR ENVIRONMENTAL HEALTH,
Plaintiff,
v.
TOMMY BAHAMA GROUP, INC., *et al.*,
Defendants.

Case No. RG 19-034870
[Consolidated with Lead Case No. RG
19-029736]
**[PROPOSED] CONSENT
JUDGMENT AS TO RAINBOW
SANDALS, INC.**

1 **1. INTRODUCTION**

2 1.1 The Parties to this Consent Judgment are the Center for Environmental Health, a
3 California non-profit corporation (“CEH”), and Rainbow Sandals, Inc. (“Settling Defendant”).
4 CEH and Settling Defendant are referred to herein together as the “Parties” or singly as a “Party.”
5 The Parties enter into this Consent Judgment to settle certain claims asserted by CEH against
6 Settling Defendant as set forth in the operative complaint in the above-captioned matter. This
7 Consent Judgment addresses chromium exposures from footwear made with leather materials.
8 Leather used to make footwear that is tanned with chromium compounds can under certain
9 circumstances expose consumers to hexavalent chromium (“CrVI”), which is a chemical listed
10 under Proposition 65 as a known to the State of California to cause cancer and reproductive
11 toxicity.

12 1.2 On October 17, 2019, CEH provided a 60-day Notice of Violation under
13 California Health & Safety Code Section 25249.5 *et seq.* (“Proposition 65”) to Settling
14 Defendant, the California Attorney General, the District Attorneys of every county in California,
15 and the City Attorneys of every California city with a population greater than 750,000, alleging
16 that Settling Defendant violated Proposition 65 by exposing persons to CrVI from leather
17 footwear without first providing a clear and reasonable Proposition 65 warning.

18 1.3 On September 12, 2019, CEH filed the original Complaint in the above-captioned
19 matter. On January 6, 2020, CEH amended the Complaint to name Settling Defendant as a
20 defendant in this action.

21 1.4 Settling Defendant is a corporation and a person in the course of doing business as
22 such term is defined under Proposition 65.

23 1.5 Settling Defendant represents that since the filing of this action, Settling Defendant
24 has worked with its suppliers to ensure that all of the leather used to produce its sandals and other
25 footwear products are tanned without chromium based chemicals and that its entire line of
26 products is now “Chrome-Free.”

1 1.6 For purposes of this Consent Judgment only, the Parties stipulate that this Court
2 has jurisdiction over the allegations of violations contained in the operative Complaint applicable
3 to Settling Defendant (the “Complaint”) and personal jurisdiction over Settling Defendant as to
4 the acts alleged in the Complaint, that venue is proper in the County of Alameda, and that this
5 Court has jurisdiction to enter and enforce this Consent Judgment as further set forth herein as a
6 full and final resolution of all claims which were or could have been raised in the Complaint
7 based on the facts alleged therein with respect to leather footwear sold by Settling Defendant.

8 1.7 Nothing in this Consent Judgment is or shall be construed as an admission by the
9 Parties of any fact, conclusion of law, issue of law, or violation of law, nor shall compliance with
10 the Consent Judgment constitute or be construed as an admission by the Parties of any fact,
11 conclusion of law, issue of law, or violation of law. Nothing in this Consent Judgment shall
12 prejudice, waive, or impair any right, remedy, argument, or defense the Parties may have in any
13 other pending or future legal proceedings. This Consent Judgment is the product of negotiation
14 and compromise and is accepted by the Parties solely for purposes of settling, compromising, and
15 resolving issues disputed in this action.

16 **2. DEFINITIONS**

17 2.1 “Chrome-Free Leather” means that: (a) the skin or hide used to make the
18 leather was converted to leather by tanning agents free of chromium salts, including but not
19 limited to chromium sulfate; (b) the leather was not intentionally treated, dyed, or exposed to
20 chemicals that contain chromium as an intended ingredient; and (c) the total content of the
21 chromium in the tanned leather is less than or equal to 0.1% (mass of chromium/total dry weight
22 of leather) when measured using ISO 17072-2.

23 2.2 “Chrome-Tanned Leather” means that the hide or skin used to make the
24 leather was converted to leather either by treatment solely with chromium salts or with chromium
25 salts together with a small amount of some other tanning agent, used merely to assist the
26 chromium tanning process, and not in sufficient amount to alter the essential chromium tanned
27 character of the leather that is tanned with chromium compounds.

1 2.3 “Covered Products” means footwear for which normal and foreseeable use
2 will result in one or more Chrome-Tanned Leather components coming into direct contact with
3 the skin of the average user’s foot or leg while the footwear is worn (e.g., a chrome-tanned leather
4 insole, tongue, liner, unlined upper, or strap).

5 2.4 “Effective Date” means the date on which this Consent Judgment is entered by
6 the Court.

7 **3. INJUNCTIVE RELIEF**

8 3.1 **Reformulation.** After the Effective Date, Settling Defendant shall not
9 purchase, import, manufacture, or sell any Covered Product that is made with leather that is not
10 Chrome-Free Leather.

11 3.2 **Existing Inventory - Clear and Reasonable Warnings.** Settling Defendant
12 has limited existing inventory of Covered Products that were purchased prior to its reformulation
13 effort and the Effective Date that contains Chrome-Tanned Leather. Notwithstanding Section 3.1,
14 Settling Defendant may sell such existing inventory that was purchased prior to the Effective
15 Date provided that it complies with this Section 3.2.

16 3.2.1 Clear and Reasonable Warnings - Product Labeling. Settling Defendant
17 may sell such existing inventory provided that it is labeled with a Clear and Reasonable
18 Warning that complies with the provisions of this Section 3.2 and Title 27 California Code
19 of Regulations section 25601, *et seq.* A Clear and Reasonable Warning under this
20 Consent Judgment shall state:



WARNING: This product can expose you to chemicals including hexavalent chromium, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

24
25 The word “WARNING” shall be displayed in all capital letters and bold print and shall be
26 preceded by the yellow warning triangle symbol depicted above, provided however, the symbol
27 may be printed in black and white if the Covered Product label is produced without using the

1 color yellow. This warning statement shall be prominently displayed on the outer packaging or
2 tag of the Covered Product and shall be displayed with such conspicuousness, as compared with
3 other words, statements, or designs as to render it likely to be seen, read, and understood by an
4 ordinary individual prior to sale. The warning may be applied to the product by a sticker or other
5 adhesive. Where a sign or label used to provide a warning includes consumer information about a
6 product in a language other than English, the warning shall also be provided in that language in
7 addition to English. For internet, catalog, or any other sale where the consumer is not physically
8 present, the warning statement shall be displayed in such a manner that it is likely to be read and
9 understood by an ordinary individual prior to the authorization of or actual payment.

10 **3.3 Unavailability of Chrome-Free Leather.** Subject to Sections 3.3.1 and 3.3.2, if
11 Settling Defendant is unable to obtain Chrome-Free Leather for its Covered Products, or if
12 commercially available Chrome-Free Leather for its Covered Products is determined to be
13 unsuitable, Settling Defendant may sell such Covered Products made with Chrome-Tanned
14 Leather only if (a) the leather was produced pursuant to the leather tanning protocols set forth on
15 Exhibit A, or (b) the Covered Products are labeled with the Clear and Reasonable Warnings set
16 forth in Section 3.2.1. Such Clear and Reasonable Warnings may not be used on any Covered
17 Products that contain only Chrome-Free Leather, or for which suitable Chrome-Free Leather is
18 commercially available.

19 **3.3.1** Before Settling Defendant may employ the leather tanning protocols set
20 forth on Exhibit A or use Clear and Reasonable Warnings for such Covered Products made with
21 Chrome-Tanned Leather, Settling Defendant shall use reasonable commercial efforts to obtain
22 suitable Chrome-Free Leather for these Covered Products. At least thirty (30) days before it sells
23 any such Covered Products made with Chrome-Tanned Leather, Settling Defendant shall serve on
24 CEH a written report notifying CEH of its intent to either employ the leather tanning protocols set
25 forth on Exhibit A or to provide Clear and Reasonable Warnings under Section 3.3, and detailing
26 its efforts to obtain suitable Chrome-Free Leather for any affected Covered Products.

1 3.3.2 Thirty (30) days before the end of each calendar year in which Settling
2 Defendant sells such Covered Products made with Chrome-Tanned Leather under Section 3.3,
3 Settling Defendant shall serve on CEH a written report detailing its ongoing reasonable
4 commercial efforts to obtain suitable Chrome-Free Leather for use in its Covered Products.

5 **4. ENFORCEMENT**

6 4.1 **Enforcement Procedures.** CEH or any of the public entities identified in
7 Health & Safety Code section 25249.7(c) (collectively, “Enforcers”) may, by new action, motion,
8 or application for an order to show cause before the Superior Court of the County of Alameda,
9 enforce the terms and conditions contained in this Consent Judgment. Prior to bringing any
10 motion or application to enforce the requirements of Section 3 above, the Enforcer(s) shall
11 provide Settling Defendant with a Notice of Violation setting forth the basis for the alleged
12 violation. The Enforcer(s) and Settling Defendant shall then meet and confer during the thirty
13 (30) day period following the date the Notice of Violation was sent in an effort to try to reach
14 agreement on an appropriate cure, penalty, or related attorneys’ fees related to the alleged
15 violation. After such thirty (30) day period, the Enforcer(s) may seek to enforce the terms and
16 conditions contained in this Consent Judgment. In any enforcement proceeding, the Court shall
17 not be limited by this Consent Judgment in fashioning remedies for failure to comply with
18 Proposition 65, and may order compliance with Proposition 65 by reformulation, warnings, or
19 any other method it finds compliant with the law.

20 **5. PAYMENTS**

21 5.1 **Payments by Settling Defendant.** On or before thirty (30) days after the entry of
22 this Consent Judgment, Settling Defendant shall pay the total sum of \$65,000 as a settlement
23 payment as further set forth in this Section.

24 5.2 **Allocation of Payments.** The total settlement amount shall be paid in five (5)
25 separate checks in the amounts specified below and delivered as set forth below. Any failure by
26 Settling Defendant to comply with the payment terms herein shall be subject to a stipulated late
27 fee to be paid by Settling Defendant in the amount of \$100 for each day the full payment is not
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1 received after the applicable payment due date set forth in Section 5.1. The late fees required
2 under this Section shall be recoverable, together with reasonable attorneys' fees, in an
3 enforcement proceeding brought pursuant to Section 4 of this Consent Judgment. The funds paid
4 by Settling Defendant shall be allocated as set forth below between the following categories and
5 made payable as follows:

6 5.2.1 Settling Defendant shall pay \$8,400 as a civil penalty pursuant to Health &
7 Safety Code §25249.7(b). The civil penalty payment shall be apportioned in accordance with
8 Health & Safety Code §25249.12 (*i.e.*, 25% to CEH and 75% to the State of California's Office of
9 Environmental Health Hazard Assessment ("OEHHA")). Accordingly, Settling Defendant shall
10 pay the OEHHA portion of the civil penalty payment for \$6,300 by check made payable to
11 OEHHA and associated with taxpayer identification number 68-0284486. This payment shall be
12 delivered as follows:

13 For United States Postal Service Delivery:
14 Attn: Mike Gyurics
15 Fiscal Operations Branch Chief
16 Office of Environmental Health Hazard Assessment
17 P.O. Box 4010, MS #19B
18 Sacramento, CA 95812-4010

19 For Non-United States Postal Service Delivery:
20 Attn: Mike Gyurics
21 Fiscal Operations Branch Chief
22 Office of Environmental Health Hazard Assessment
23 1001 I Street, MS #19B
24 Sacramento, CA 95814

25 5.2.2 Settling Defendant shall pay the CEH portion of the civil penalty payment
26 for \$2,100 by check made payable to the Center for Environmental Health and associated with
27 taxpayer identification number 94-3251981. This payment shall be delivered to Lexington Law
28 Group, LLP, 503 Divisadero Street, San Francisco, CA 94117.

5.2.3 Settling Defendant shall pay \$6,300 as an Additional Settlement Payment
("ASP") to CEH pursuant to Health & Safety Code §25249.7(b), and California Code of
Regulations, Title 11, §3204. CEH will use these funds to support CEH programs and activities
that seek to educate the public about toxic chemicals, including hormone disruptors such as CrVI,

1 work with industries interested in moving toward safer alternatives, advocate with government,
 2 businesses, and communities for business practices that are safe for human health and the
 3 environment, and thereby reduce the public health impacts and risks of exposure to CrVI and
 4 other toxic chemicals in consumer products sold in California. CEH shall obtain and maintain
 5 adequate records to document that ASPs are spent on these activities and CEH agrees to provide
 6 such documentation to the Attorney General within thirty (30) days of any request from the
 7 Attorney General. The payments pursuant to this Section shall be made payable to the Center for
 8 Environmental Health and associated with taxpayer identification number 94-3251981. These
 9 payments shall be delivered to Lexington Law Group, LLP, 503 Divisadero Street, San Francisco,
 10 CA 94117.

11 5.2.4 Defendant shall pay \$50,300 as a reimbursement of a portion of CEH’s
 12 reasonable attorneys’ fees and costs (including but not limited to expert and investigative costs).
 13 The attorneys’ fees and cost reimbursement shall be made in two separate checks as follows: (a)
 14 \$42,700 payable to the Lexington Law Group, LLP and associated with taxpayer identification
 15 number 88-4399775; and (b) \$7,600 payable to the Center for Environmental Health and
 16 associated with taxpayer identification number 94-3251981. Both of these payments shall be
 17 delivered to Lexington Law Group, LLP, 503 Divisadero Street, San Francisco, CA 94117.

18 5.2.5 To summarize, Settling Defendant shall deliver checks made out to the
 19 payees and in the amounts set forth below:

Payee	Type	Amount	Deliver To
OEHHA	Penalty	\$6,300	OEHHA per §5.2.1
Center for Environmental Health	Penalty	\$2,100	LLG
Center for Environmental Health	ASP	\$6,300	LLG
Lexington Law Group, LLP	Fee and Cost	\$42,700	LLG
Center for Environmental Health	Fee and Cost	\$7,600	LLG

1 **6. MODIFICATION OF CONSENT JUDGMENT**

2 6.1 **Modification.** This Consent Judgment may be modified from time to time by
3 express written agreement of the Parties, with the approval of the Court, or by an order of this
4 Court upon motion and in accordance with law.

5 6.2 **Notice; Meet and Confer.** Any Party seeking to modify this Consent Judgment
6 shall attempt in good faith to meet and confer with the other Party prior to filing a motion to
7 modify the Consent Judgment.

8 **7. CLAIMS COVERED AND RELEASE**

9 7.1 Provided that Settling Defendant has complied with Section 5 hereof, this Consent
10 Judgment is a full, final, and binding resolution between CEH on behalf of itself and the public
11 interest and Settling Defendant and its parents, subsidiaries, affiliated entities that are under
12 common ownership, directors, officers, employees, agents, shareholders, successors, assigns, and
13 attorneys (“Defendant Releasees”), and all entities to which Settling Defendant directly or
14 indirectly distributes or sells Covered Products, including but not limited to distributors,
15 wholesalers, customers, retailers, franchisees, licensors, and licensees (“Downstream Defendant
16 Releasees”), of any violation of Proposition 65 based on failure to warn about alleged exposure to
17 CrVI contained in Covered Products sold by Settling Defendant prior to the Effective Date.

18 7.2 Provided that Settling Defendant has complied with Section 5 hereof, CEH, for
19 itself, its agents, successors, and assigns, releases, waives, and forever discharges any and all
20 claims against Settling Defendant, Defendant Releasees, and Downstream Defendant Releasees
21 arising from any violation of Proposition 65 or any other statutory or common law claims that
22 have been or could have been asserted by CEH individually regarding the failure to warn about
23 exposure to CrVI arising in connection with Covered Products sold by Settling Defendant prior to
24 the Effective Date.

25 7.3 Provided that Settling Defendant has complied with Section 5 hereof, compliance
26 with the terms of this Consent Judgment by Settling Defendant shall constitute compliance with
27 Proposition 65 by Settling Defendant, its Defendant Releasees, and its Downstream Defendant
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1 Releasees with respect to any alleged failure to warn about CrVI in Covered Products sold by
2 Settling Defendant after the Effective Date, except as to any Downstream Defendant Releasee
3 who fails to provide a warning provided to said entity pursuant to Section 3.2 in a manner
4 consistent with such Section.

5 7.4 By entering into this Consent Judgment, Settling Defendant waives any rights it
6 may have under Code of Civil Procedure §998.

7 **8. PROVISION OF NOTICE**

8 8.1 When CEH is entitled to receive any notice under this Consent Judgment, the
9 notice shall be sent by first class and electronic mail to:

10 Joseph Mann
11 Lexington Law Group, LLP
12 503 Divisadero Street
13 San Francisco, CA 94117
14 jmann@lexlawgroup.com

15 8.2 When Settling Defendant is entitled to receive any notice under this Consent
16 Judgment, the notice shall be sent by first class and electronic mail to:

17 Jack Robbins
18 Vice President & General Counsel
19 Rainbow Sandals, Inc.
20 900 Calle Negocio
21 San Clemente, CA 92673-6201
22 jack@rainbowsandals.com

23 8.3 Any Party may modify the person and address to whom the notice is to be sent by
24 sending the other Party notice by first class and electronic mail.

25 **9. COURT APPROVAL**

26 9.1 This Consent Judgment shall become effective as a contract upon the date signed
27 by CEH and Settling Defendant, whichever is later, provided however that CEH shall also
28 prepare and file a Motion for Approval of this Consent Judgment and Settling Defendant shall
support approval of such Motion.

1 9.2 If this Consent Judgment is not entered by the Court, it shall be of no further force
2 or effect and shall not be introduced into evidence or otherwise used in any proceeding for any
3 purpose.

4 **10. GOVERNING LAW AND CONSTRUCTION**

5 10.1 The terms of this Consent Judgment shall be governed by the laws of the State of
6 California.

7 **11. ATTORNEYS' FEES**

8 11.1 Should CEH prevail on any motion, application for an order to show cause, or
9 other proceeding to enforce a violation of this Consent Judgment, CEH shall be entitled to its
10 reasonable attorneys' fees and costs incurred as a result of such motion or application. Should
11 Settling Defendant prevail on any such motion, application for an order to show cause, or other
12 proceeding, Settling Defendant may be awarded its reasonable attorneys' fees and costs as a result
13 of such motion or application upon a finding by the Court that CEH's prosecution of the motion
14 or application lacked substantial justification. For purposes of this Consent Judgment, the term
15 "substantial justification" shall carry the same meaning as used in the Civil Discovery Act of
16 1986, Code of Civil Procedure §§2016, *et seq.*

17 11.2 Nothing in this Section 11 shall preclude a Party from seeking an award of
18 sanctions pursuant to law.

19 **12. ENTIRE AGREEMENT**

20 12.1 This Consent Judgment contains the sole and entire agreement and understanding
21 of the Parties with respect to the entire subject matter hereof, and any and all prior discussions,
22 negotiations, commitments, or understandings related thereto, if any, are hereby merged herein
23 and therein. There are no warranties, representations, or other agreements between the Parties
24 except as expressly set forth herein. No representations, oral or otherwise, express or implied,
25 other than those specifically referred to in this Consent Judgment have been made by any Party
26 hereto. No other agreements not specifically contained or referenced herein, oral or otherwise,
27 shall be deemed to exist or to bind any of the Parties hereto. Any agreements specifically
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1 contained or referenced herein, oral or otherwise, shall be deemed to exist or to bind any of the
2 Parties hereto only to the extent that they are expressly incorporated herein. No waiver of any of
3 the provisions of this Consent Judgment shall be deemed or shall constitute a waiver of any of the
4 other provisions hereof whether or not similar, nor shall such waiver constitute a continuing
5 waiver.

6 **13. RETENTION OF JURISDICTION**

7 13.1 This Court shall retain jurisdiction of this matter to implement or modify the
8 Consent Judgment.

9 **14. SUCCESSORS AND ASSIGNS**

10 14.1 This Consent Judgment shall apply to and be binding upon CEH and Settling
11 Defendant, and their respective divisions, subdivisions, and subsidiaries, and the successors or
12 assigns of any of them.

13 **15. AUTHORITY TO STIPULATE TO CONSENT JUDGMENT**

14 15.1 Each signatory to this Consent Judgment certifies that he or she is fully authorized
15 by the Party he or she represents to stipulate to this Consent Judgment and to enter into and
16 execute the Consent Judgment on behalf of the Party represented and to legally bind that Party.

17 **16. NO EFFECT ON OTHER SETTLEMENTS**

18 16.1 Nothing in this Consent Judgment shall preclude CEH from resolving any claim
19 against an entity that is not Settling Defendant on terms that are different from those contained in
20 this Consent Judgment.

21 **17. EXECUTION IN COUNTERPARTS**

22 17.1 The stipulations to this Consent Judgment may be executed in counterparts
23 and by means of facsimile or portable document format (pdf), which taken together shall be
24 deemed to constitute one document.

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IT IS SO STIPULATED:

Dated: March 18, 2024

**CENTER FOR ENVIRONMENTAL
HEALTH**



Signature

Kizzy Charles- Guzman
Printed Name

CEO
Title

Dated: _____, 2024

RAINBOW SANDALS, INC.

Signature

Printed Name

Title

IT IS SO ORDERED:

Dated: _____, 2024

Judge of the Superior Court

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IT IS SO STIPULATED:

Dated: _____, 2024

**CENTER FOR ENVIRONMENTAL
HEALTH**

Signature

Printed Name

Title

Dated: 3-13, 2024

RAINBOW SANDALS, INC.

Jay R. Langley, Jr.
Signature

Jay R. Langley, Jr.
Printed Name

President
Title

IT IS SO ORDERED:

Dated: _____, 2024

Judge of the Superior Court

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EXHIBIT A
Reformulation Protocols for Covered Products Made with Chrome-Tanned Leather
(if Chrome-Free Leather Is Unavailable)

**LEATHER TANNING/FINISHING PROTOCOL
FOR COMPLIANCE WITH PROPOSITION 65 REQUIREMENTS TO
MINIMIZE POTENTIAL FORMATION OF HEXAVALENT CHROMIUM**

Leather Tanning/Finishing Protocol

The following protocol for chrome-tanners/retanners identifies good manufacturing practices recognized by the leather tanning industry to eliminate or minimize the formation of hexavalent chromium in chrome-tanned or chrome re-tanned leather. Tannery shall provide transport and storage instructions specifying recommended temperature, humidity, and light conditions sufficient to maintain physical and chemical properties of the leather relevant to CrVI formation.

Upon written agreement of the Parties, this Protocol may be re-evaluated and revised appropriately to reflect advances in technology and production processes. Unless otherwise noted, references to test methods, detection limits, and other standards are to the version in place as of adoption of this Protocol.

1. Process Stage: Beamhouse

- 1.1. *Degreasing*: Thorough degreasing processes must be employed to reduce the presence of natural fats that can diminish leather quality and potentially contribute to CrVI formation.
 - 1.1.1. Perform thorough and consistent degreasing during beamhouse operations involving sheepskin, pigskin, and other high-fat content hides (*i.e.*, fat content over 3% dry weight basis). These materials can be very greasy and may require a specific, separate degreasing operation to reduce the fat content.
 - 1.1.2. Processing of bovine hides should include the use of surfactants to ensure fat content less than 3% dry weight basis.
 - 1.1.3. Use of halogenated organic degreasing agents is prohibited.
 - 1.1.4. Use only aqueous degreasing agents.
 - 1.1.5. Do not use products with oxidative potential.
 - 1.1.6. If bleaching is required (under exceptional circumstances to reduce natural skin pigmentation when producing very pale leather), products with oxidative potential may be necessary. If used, the process should incorporate iodine-starch paper for each batch of leather being processed to check oxidative potential and, if necessary, use reducing agent prior to addition of chromium in tanning stage.
 - 1.1.7. Wash limed hides/pelts properly after liming and decalcifying.

2. Process Stage: Tanning/Wet Blue

- 2.1. *Tanning Agents*: Chromium-containing tanning agents must not contain intentionally added or detectable levels¹ of CrVI.

¹ The terms “detectable/undetectable levels” of CrVI shall be defined by the relevant test method appropriate for the chemical.

- 2.1.1. Obtain from chemical supplier test reports for each supplier production batch conducted pursuant to ISO 19071 for CrVI in chromium tanning agents demonstrating detectable levels of CrVI no higher than the levels specified in the most current version of the ZDHC Manufacturing Restricted Substances List (“MRSL”)² (as analyzed by the test method specified therein).
 - 2.1.2. Maintain inventory control to ensure quality of tanning agents at time of use. Use of tanning/retanning agents past their “use by” date is prohibited.
 - 2.1.3. Tanning process vessels and associated make-up and delivery systems to be thoroughly cleaned and maintained using best practices.
 - 2.1.4. Water used during the tanning process and to clean apparatus, tubs, tools, and other equipment must have undetectable levels of CrVI.
 - 2.1.4.1. Recycled water must be tested regularly (at least annually) and verified as having undetectable levels of CrVI; water received directly from municipal or permitted wells does not require repeat verification of CrVI levels but should be analyzed to confirm absence of CrVI.
 - 2.1.5. Storage conditions must be maintained in accordance with chemical supplier instructions. Storage of chemicals outside of manufacturer recommendations is prohibited, unless representative samples of the chemicals are tested to confirm undetectable levels of CrVI no later than one month prior to use. ISO 19071 or other CrVI test methods appropriate to the chemical shall be employed.
 - 2.1.6. Final wash must be employed to remove unfixed chrome to the extent feasible.
 - 2.1.7. Use of chromium tanning agents recycled by the tannery is prohibited unless tested regularly (at least annually) to confirm undetectable CrVI via ISO 19071.
- 2.2. Use of Oxidizing Agents: The use of oxidizing agents such as sodium chlorite (or hypochlorite) in the pickle, or of potassium permanganate in pre-tanning wet-end operations, increases the risk of the formation of CrVI.
- 2.2.1. Oxidizing agents may only be used if they can be shown to be absolutely necessary (*e.g.*, for white or pastel shades) and if the residuals are reduced prior to the addition of chrome tanning agents. Starch-iodide test papers (must show no color development) or Oxidation-Reduction Potential (“ORP”) measurement (must show a negative reading indicating a reducing agent) shall be used to confirm lack of oxidative potential.
- 2.3. Measure and monitor levels of residual natural fats in wet blue leather. Bovine leather shall contain no more than 3% residual fat as measured below. Pigskin leather shall contain no more than 7% residual fat, as measured below. Other leather (*e.g.*, sheep, goat, *etc.*) shall contain no more than 4% fat, as measured below.
- 2.3.1. Monitoring must indicate an average grease content of less than 3% (bovine) or 4% (other) by weekly analysis or per 30 batches of production, whichever is the more frequent. For pigskin, monitoring must indicate an average grease content of less

² The ZDHC MRSL is the minimum standard for the CrVI standard in this Protocol. Reference to other CrVI limits from other MRSLs may be used if they meet or exceed the stringency of the ZDHC standard. The current version of the ZDHC MRSL is v.3.1 and can be found at: <https://mrsl-30.roadmapprotozero.com/mrslpdf?for=Consultancy>. All references to the ZDHC MRSL in this Protocol refer to the then most current version of the ZDHC MRSL. This note applies to all references to ZDHC in this Protocol.

than 7% by monthly analysis or per 30 batches of production, whichever is the more frequent. (A “batch” is a production drum load or a group of hides/skins that are processed together as a unit.)

2.3.2. Alternatively, the wet blue leather must have a maximum of 0.5% of Free Fatty Acids (using test method ISO 4048:2018)

2.4. If wet blue is used as a starting material: Wet blue bought from other suppliers must be shown to be free of CrVI (using the ISO 17075-2 test method after ageing procedure) and to have fat content less than 3% (bovine), 7% (pigskin), or 4% (other). For pigskin with fat content over 4%, additional degreasing shall be performed before or during the retan stage to reduce fat content below 4%.

3. Process Stage: Retanning/Wet End/Finishing

3.1. Retanning Agents: Optimization of chrome fixation is critical to reduce extractable chrome levels and the potential for CrVI formation.

3.1.1. Use of oxidizing agents (such as ammonia-based chemicals/bleach) after chrome tanning is prohibited.

3.1.2. Confirm selection of appropriate retanning agents for binding behavior and/or use of complexing agents. Maintain documentation.

3.1.3. Chromium-containing retanning agents must not contain intentionally added or detectable levels of CrVI higher than the levels specified in the ZDHC MRSI.

3.1.4. Obtain from chemical supplier test reports conducted pursuant to ISO 19071 demonstrating undetectable levels of CrVI.

3.1.5. Maintain inventory control to ensure quality of retanning agents at time of use. Use of retanning agents past their “use by” date is prohibited.

3.2. Retanning process vessels and associated make-up and delivery systems to be thoroughly cleaned and maintained using best practices.

3.3. Water used during retanning process and to clean apparatus, tubs, tools, and other equipment must have undetectable levels of CrVI. Recycled water must be tested regularly (at least annually) and verified as having undetectable levels of CrVI; water received directly from municipal or permitted wells does not require repeat verification of CrVI levels but should be analyzed to confirm absence of CrVI.

3.4. Storage conditions must be maintained in accordance with chemical supplier instructions. Storage of chemicals outside of manufacturer recommendations is prohibited, unless representative samples of the chemicals are tested to confirm undetectable levels of CrVI no later than one month prior to use. ISO 19071 or other CrVI test methods appropriate to the chemical shall be employed.

3.5. Final wash must be employed to remove unfixed chrome to the extent feasible.

3.6. Use of chromium retanning agents recycled by the tannery is prohibited unless tested regularly (at least annually) to confirm undetectable CrVI via ISO 19071.

- 3.7. Use scavenging agents, such as 1%-3% vegetable tanning extracts, for antioxidant protection, or use commercially-available synthetic antioxidants specifically formulated for the purpose and according to manufacturer specifications. (Antioxidants may be introduced directly or as part of the retanning agent formulation.)
- 3.7.1. Add antioxidants during retanning process to enable longer-lasting antioxidant efficacy. Use of only spray-on antioxidants is prohibited.

3.8. Dyes and Pigments:

- 3.8.1. Dye and pigments must not contain intentionally added or detectable levels of CrVI.
- 3.8.2. Obtain from chemical supplier test reports conducted pursuant to ISO or EPA test method for CrVI demonstrating undetectable levels of CrVI.
- 3.8.3. Obtain from chemical supplier certification that dyes or pigments lack oxidative potential (through ORP measurement showing a negative reading indicating a reducing agent or other appropriate method).
- 3.8.4. If chromium-containing dyes or pigments are used, final product must be tested annually (or sooner if there is a change in formula) to confirm levels of CrVI below detection limit. Test using ISO 17075-2.
- 3.8.5. Use of dyes and pigments must be compliant with the ZDHC MRSL.

3.9. Bleaches:

- 3.9.1. Use of aggressive bleaches, peroxides, and potassium permanganate (KMnO₄) as bleaching agents after tanning is prohibited.

3.10. Fatliquors: Fatliquors must be suitably formulated with an appropriate antioxidant to protect against CrVI formation. Fish and vegetable oils in particular must be formulated with an appropriate antioxidant to protect against CrVI formation. Do not use fatliquors without having first obtained from the supplier a statement confirming that fatliquors are formulated with an appropriate antioxidant.

3.11. Inventory control must be maintained to ensure quality of fatliquors at time of use and that all fatliquors are used prior to “use by” dates.

3.12. Chemical storage conditions must be maintained in accordance with chemical supplier instructions to avoid fatliquor breakdown. Storage in conditions outside of manufacturer recommendations is prohibited, unless representative samples of the chemicals are tested to confirm the absence of oxidative potential no later than one month prior to use. Starch-iodide test papers (must show no color development) or ORP measurement (must show a negative reading indicating a reducing agent) shall be used to confirm lack of oxidative potential.

4. Finishing Oils/Waxes: Oils and wax finishes containing a high level of unsaturated fats are more likely associated with CrVI formation.

- 4.1. Obtain from supplier a statement confirming that finishing oils and waxes are suitable for use and do not contribute to CrVI formation (such as by indicating compliance with ZDHC MRSL specifications).
5. **pH Levels:** Careful monitoring of pH through the entire set of tanning, retanning, fatliquoring, and dyeing process stages is critical to the avoidance of CrVI in the finished leather product. The potential for formation of CrVI increases at higher pH. While the neutralization process during wet end retanning will raise pH, this will be reversed during subsequent acidification and fixation.
 - 5.1. The pH must be maintained below 4.0 in the final bath (fixation) of the re-tanning process to ensure entire cross-section of leather is at acidic pH. Maintain documentation of final pH.
 - 5.2. Acidification at the end of wet end processing should be done in a steady manner with 2-3 additions of acid.
 - 5.3. Allow sufficient time to ensure complete acid penetration, depending on thickness and other processing conditions.
 - 5.4. The pH through the entire leather cross-section must be consistently below 4.5 in finished leather. Document final pH of leather determined during research and development. Conduct random audit sampling to ensure pH of final leather product is below 4.5 and maintain documentation.
6. **Final Wash:** Final wash must be employed to remove unfixed chrome. The pH of wash waters may need to be adjusted (lowered) to avoid localized, surface raising of pH.
 - 6.1. Drying: Solar irradiation is prohibited during drying of the leather.
7. **Mold:**
 - 7.1. Use of ammonia to prevent mold formation is prohibited. If a fungicide is to be used to prevent mold formation a declaration should be obtained from the manufacturer to confirm that its use will not contribute to the potential formation of CrVI.
8. **Process Stage: Storage and Transportation**
 - 8.1. Storage and transportation conditions must be monitored to maintain temperature, humidity, and light exposure to reduce the possibility of CrVI formation. Tannery shall provide storage instructions specifying recommended temperature, humidity, and light conditions sufficient to maintain physical and chemical properties of the leather.

9. Good Manufacturing and Quality Control Standards

- 9.1. The following quality assurance procedures must be implemented in order to ensure the prevention of CrVI formation throughout the entire production process:
 - 9.1.1. Ensure cleanliness and good organization within the entire production facility.
 - 9.1.2. Storage conditions must be regularly checked to ensure that chemical degradation does not occur.
 - 9.1.3. Inventory control (received date, use by date, supplier, batch number, stores location, *etc.*) must be undertaken to ensure that chemicals are not used past their use-by date.
 - 9.1.4. Train employees in the safe use of chemicals and the correct make-up and application procedures for their use in each stage of the process. Educate workers about the potential for formation of CrVI, its potential for harm in the final product, and their role in ensuring process recipes are followed in order to ensure manufacture of a safe product. Ensure that all safety data sheets are current and available for each chemical, and that employees have been trained to properly handle and store the chemicals. Maintain written chemical management policy.
 - 9.1.5. All process steps must be documented, including the chemicals used in order to ensure transparency in the manufacturing or processing procedure.
 - 9.1.6. Ensure that the products which you use to degrease, tan, dye, or retan the leather do not contain intentionally added or detectable levels of CrVI higher than the levels specified in the ZDHC MRSL and have low oxidation potential. Obtain from chemical supplier a statement confirming that chemicals are suitable for use and do not contribute to CrVI formation or have oxidative potential. If stored outside of supplier recommendations or past “use by” dates, use iodine-starch paper or ORP measurement to check oxidative potential and if necessary use reducing agent prior to use.
 - 9.1.7. Use of chemicals which contain intentionally added CrVI or which the manufacturer cannot guarantee as having detectable levels of CrVI no higher than the levels specified in the ZDHC MRSL is prohibited.
 - 9.1.8. Maintain detailed internal quality control records.
 - 9.1.9. Testing: Annually test representative samples of finished leather for CrVI. Refer to AFIRM Restricted Substances List (available at https://afirm-group.com/wp-content/uploads/2023/04/2023_AFIRM_RSL_2023_0419a.pdf) for recommended testing method.