



0250724

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

September 12, 1996

Mr. Eladio George Morfa
General Manager
American Bumper Corporation
7851 Northwest 64 Street
Miami, Florida 33166

Dear Mr. Morfa:

The Department has received the Title V General Permit Notification Form for the chromium electroplating and anodizing facility that you submitted on August 29, 1996.

Please note that in November of each year the Department will be mailing fee notices to those facilities using the Title V general permit. This annual operation fee is \$50 and it is due and payable between January 15 and March 1 of each year the facility is in operation and is subject to the requirements of the Title V general permit.

If you have or expect to have any changes in your mailing address, location address, responsible official, or phone number, please notify the Department at the following address:

Title V General Permits Office
Bureau of Air Monitoring and Mobile Sources MS 5510
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

If there are any changes in the facility status, including change of operating parameters or equipment, or if you have any additional questions regarding the Title V General Permit Program, please contact the District or local air program compliance inspector in your area.

Sincerely,

Dotty Diltz, Chief
Bureau of Air Monitoring
and Mobile Sources

/DD

cc: Mr. Ewart Anderson, Dade County

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

8/30/96

American Bumper Corp.

Note: Recordkeeping Requirements suggest that the following records be kept on site:

- 1) Equipment Maintenance
- 2) " Inspection
- 3) " Malfunction
- 4) " Monitoring

Alan Dms

Chromium Electroplating and Anodizing Facilities Notification

Facility Name and Location

1. Facility Owner/Company Name (Name of corporation, agency, or individual owner):	AMERICAN BUMPER CORPORATION		
2. Site Name (For example, plant name or number):	N/A (AMERICAN BUMPER CORP.)		
3. Hazardous Waste Generator Identification Number:			
4. Facility Location:	7851 N.W. 64 STREET		
Street Address:			
City: MIAMI	County: DADE	Zip Code: 33166	
5. Facility Identification Number (DEP Use):	0250724		

Responsible Official

6. Name and Title of Responsible Official:	ELADIO GEORGE MORFA (GENERAL MANAGER)		
7. Responsible Official Mailing Address:	7851 N.W. 64 ST		
Organization/Firm:	AMERICAN BUMPER CORP.		
Street Address:	7851 N.W. 64 ST.		
City: MIAMI	County: DADE	Zip Code: 33166	
8. Responsible Official Telephone Number:			
Telephone: (305) 592-6360	Fax: (305) 592-3199		

Facility Contact (If different from Responsible Official)

9. Name and Title of Facility Contact (For example, plant manager):	NO		
10. Facility Contact Address:	NO		
Street Address:			
City:	County:	Zip Code:	
11. Facility Contact Telephone Number:			
Telephone: () - NO	Fax: ()		

RECEIVED

AUG 29 1996

Facility Information

1.a. Provide the information below for each hard electroplating machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

HARD		CHROMIUM	PLATING	TANKS
TANK ID #	DATE PURCHASED	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
N/A ^a				

Key for Control Device Type

- PBS = packed-bed scrubber
- CMP = composite mesh pad
- PBS/CMP = packed-bed scrubber and composite mesh pad
- FS = fume suppressant only
- FS/WA = fume suppressant with a wetting agent
- FM = fiber-bed mist eliminator

Applicable Standard Key

- a = 0.03 mg/dscm
- b = 0.015 mg/dscm
- c = alternative standard for multiple tanks under common control

Is the facility's cumulative potential rectifier capacity greater than 60 million ampere-hours per year?

Yes No

Were any hard chromium plating tanks at the facility operating before 12/16/93?

Yes No

1.b. Provide the information below for each decorative electroplating or anodizing machine at the facility. Indicate the type of machine, the date of its purchase, and the date the control device was installed, if applicable.

DECORATIVE AND ANODIZING TANKS				
TANK ID #	DATE PURCHASED	DATE CNTRL DEVICE INSTALLED	CONTROL DEVICE (see key)	APPLICABLE STANDARD (see key)
# 1	16-DEC-93	25-JAN-96	FS/WA	Y

Key for Control Device Type

- PBS = packed-bed scrubber
- CMP = composite mesh pad
- PBS/CMP = packed-bed scrubber and composite mesh pad
- FS = fume suppressant only
- FS/WA = fume suppressant with a wetting agent
- FM = fiber-bed mist eliminator

Applicable Standard Key

- x = 0.01 mg/dscm
- y = 45 dynes/cm
- z = records of bath components (trivalent Cr tanks only)
- c = alternative standard for multiple tanks under common control

2. Indicate the date by which the facility must meet the requirements of section (5) of Part II of this form:

- January 25, 1996 January 25, 1997

3. Indicate how the facility will fulfill the compliance demonstration:

- The facility will conduct an initial performance test
- The facility will use a wetting agent to reduce emissions and will meet the existing surface tension limit in No. 3 above.

Equipment Monitoring and Recordkeeping Information

Check all logs which are required to be kept on-site in accordance with the requirements of this general permit:

- | | | | |
|--|-------------------------------------|--|-------------------------------------|
| (a) Equipment maintenance | <input type="checkbox"/> | (b) Equipment inspection and repair | <input type="checkbox"/> |
| (c) Equipment malfunctions | <input type="checkbox"/> | (d) Operation and maintenance checklist | <input checked="" type="checkbox"/> |
| (e) Instrument calibration | <input checked="" type="checkbox"/> | (f) Start-up, shutdown, malfunction plan | <input checked="" type="checkbox"/> |
| (g) Performance test results | <input checked="" type="checkbox"/> | (h) Equipment monitoring | <input type="checkbox"/> |
| (i) Excess emissions | <input checked="" type="checkbox"/> | (j) Operating periods | <input checked="" type="checkbox"/> |
| (k) Rectifier capacity | <input checked="" type="checkbox"/> | (l) Fume suppressant records | <input checked="" type="checkbox"/> |
| (m) Purchase records of wetting agent components | <input checked="" type="checkbox"/> | | |

Surrender of Existing Air Permit(s)

Please indicate with an "X" the appropriate selection:

- I hereby surrender all existing air permits authorizing operation of the facility indicated in this notification form; specifically, permit number(s) _____
- No air permits currently exist for the operation of the facility indicated in this notification form.

Responsible Official Certification

I, the undersigned, am the responsible official, as defined in Part II of this form, of the facility addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I agree to operate and maintain the air pollutant emissions units and air pollution control equipment described above so as to comply with all terms and conditions of this general permit as set forth in Part II of this notification form.

I will promptly notify the Department of any changes to the information contained in this notification.


Signature

8/23/96
Date

I/We, E. GEORGE MORFA Owner / Operator of AMERICAN BUMPER Corp's decorative chromium electroplating tank hereby agree to follow the manufacturer's operating instruction and trouble shooting guide for operation and maintenance of the testing equipment (Stalagmometer), emission control (wetting agent) and emission source (chromium plating tank). This statement has been prepared to comply with the Standards specified in 40 CFR 63.342 (3). Attached are the said manufacturer's operating instructions.

E. GEORGE MORFA
Name


Signature

8/23/96
Date

GENERAL MANAGER
Title

CMS

Chromium Mist Suppressant

INTRODUCTION

The M & T HARSHAW[®] CMS Chromium Mist Suppressant is used to reduce losses of chromic acid from decorative chromium plating baths by drag-out and spray. CMS does this by forming an effective and easily controlled foam blanket on the solution surface. CMS is characterized by:

- Reduced chromic acid drag-out Lowers waste treatment requirements
- Immediate formation of a foam blanket Reduces chromic acid spray and fumes
- Economical, easy to use liquid Savings result from lower chromic acid use

USE

CMS is a concentrated solution and may be added directly to the plating bath or diluted for convenience in continuous feed operations by mixing one part CMS with four parts water. In most cases CMS will form a foam blanket approximately 1/2 to 1 inch thick with the addition of 2.5 - 5.0 fl.oz. per 1000 gallons of plating solution. The exact requirement for start-up will depend upon the characteristics of the individual installation. Regular additions of CMS will be required to maintain an adequate foam layer or a continuous feeding device can be used, once the addition rate has been established.

Do 1/4 by volume

MATERIALS AND PACKAGING

CMS is a clear, water solution having a slight odor and a pH of 8. It is packaged in 1 gallon (3.8 liter) polyethylene bottles, four to a carton.

STORAGE

CMS should be stored in a cool, dry location and not near supplies of food, drink, or animal feeds. Containers should be kept closed. The shelf life of unopened containers of this product is one year.

Technical information and data regarding the composition, properties, or use of the products described herein is believed to be reliable. However, no representation or warranty is made with respect thereto except as made by M&T Harshaw in writing at the time of sale. M&T Harshaw cannot assume responsibility for any patent liability which may arise from the use of any product in a process, manner or formula not designed by M&T Harshaw.

Bi-MeGa Distributing Co. Inc.
10641 N.W. 53rd. Street
Sunrise, Florida 33351
(305) 572-6771



1-800-PLATING

Revised: 03/08/91

SAFETY

Consult the individual Material Safety Data Sheets (MSDS) covering CMS for complete information. For both CMS and the working plating solution, handling is recommended using chemical goggles or a full face shield, as well as protective clothing (e.g. neoprene gloves and boots, acid resistant apron or suit and hat). Prevent body or eye contact with these materials. Skin contact or inhalation of the additives or working bath including mists should be avoided. A NIOSH/MSHA approved respirator should be used, as necessary. Any pouring or pumping of the solution or its additive should be designed to minimize misting or splashing. Always wash hands thoroughly after handling.

CMS causes eye irritation and prolonged or repeated contact with the skin causes mild skin irritation. Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. Flush skin with water. No adverse effects are expected by either inhalation or ingestion. If exposed to excessive levels of fumes, remove to fresh air and seek medical attention. If large quantities are ingested, seek medical advice.

SPILLS AND WASTE DISPOSAL

Consult the individual Material Safety Data Sheets (MSDS) covering CMS for complete information.

In case material is spilled, contain spillage, soak up with inert absorbent and scoop into container for disposal. Notification of the National Response Center ((800) 424-8802) may be required. Refer to EPA, DOT and applicable state and local regulations for current response information.

It is recommended that each user establish a spill prevention control and countermeasure plan (SPCC). Such a plan should include procedures applicable to proper storage, control and clean-up of spills, including re-use or disposal, as appropriate.

Federal, state and local disposal laws and regulations will determine the proper waste disposal procedure. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary). Disposal requirements are dependent on the hazard classification of the material in the form you are disposing of it, then follow the applicable procedure. Some waste materials are amenable to recycle/re-use.

For more information on this and any other M & T Harshaw product call:

1-800-PLATING

USE OF STALAGMOMETER

The stalagmometer must be properly cleaned before being used the first time and after a period of storage. **CAUTION:** Since Nitric Acid fumes are evolved during the cleaning process, the procedure should be done in a fume hood using proper personal protection.

Properly clean the stalagmometer using the following procedure:

1. Set up stalagmometer in stand in a fume hood.
2. Place a clean 150 ml beaker underneath the stalagmometer then fill with reagent grade concentrated nitric acid. Immerse bottom tip (approx. 1/2") of stalagmometer into the beaker.
3. Squeeze rubber bulb and pinch at the arrow up (↑) position to collapse. Place bulb end securely on top end of stalagmometer. Carefully draw the nitric acid by pinching the arrow up (↑) position until the level is above the top etched line. (See figure 1)
4. Allow nitric acid to remain in stalagmometer for 5 minutes and then carefully remove the bulb allowing the acid to completely drain.

NOTE: The nitric acid can be stored in a tightly stoppered amber glass bottle and be reused several times.

5. Fill a clean 150 ml beaker with distilled or deionized water. Using the rubber bulb per the instructions in Step #3, rinse and drain stalagmometer with deionized or distilled water until the inside is "water break" free.
6. Fill a clean 150 ml beaker with alcohol. Again using the rubber bulb per Step #3, rinse and drain the stalagmometer twice with alcohol and allow the stalagmometer to dry completely.
7. Take a sample of the solution to be tested and adjust the solution to room temperature. Measure the specific gravity and record the reading.
8. Fill a clean 150 ml beaker with solution to be tested. Immerse bottom end of stalagmometer into the beaker. Fill the stalagmometer per instructions in Step #3, making sure that the solution level is above the top etched line. (See figure 1)
9. Raise the stalagmometer so that the bottom end is completely out of solution. Remove bulb and immediately place a finger on the top end of the stalagmometer. Carefully use the finger to bring the solution level down to the top etched line. Do not release finger at this time.
10. "Wipe" the excess solution on the lower tip by touching it against the side of the beaker.
11. Release fingertip to allow solution to drain and count the number of drops until the level reaches the bottom etched line. (See figure 1)

Bi-MeGa Distributing Co. Inc.
10641 N.W. 53rd. Street
Sunrise, Florida 33351
(305) 572-6771

CALCULATIONS

$$\text{Surface tension} = \frac{1440}{\text{\# of Drops counted}} \times \text{Specific Gravity}$$

Dynes/cm

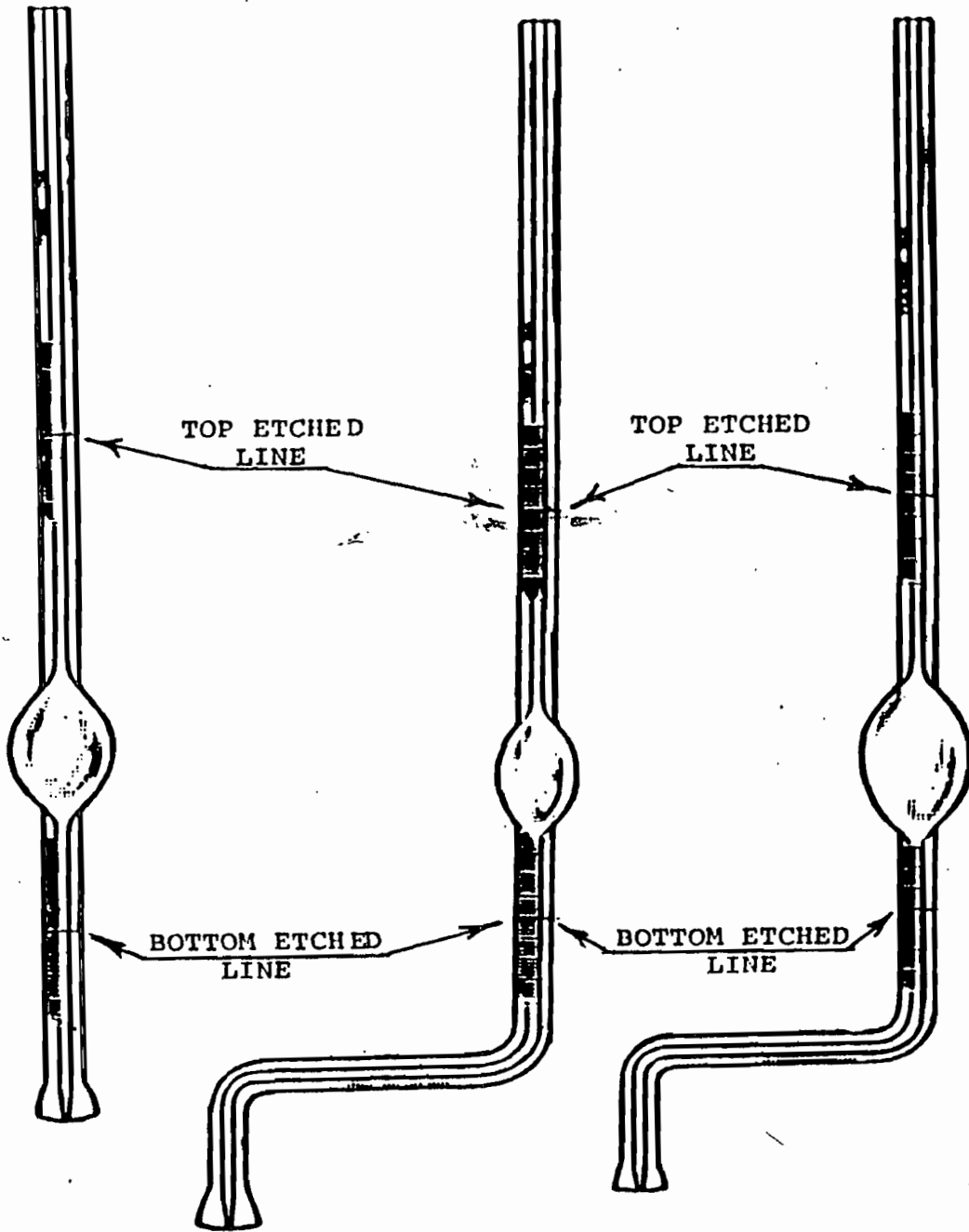
This stalagmometer is calibrated at 20 drops at 25° C.

IMPORTANT NOTES

- A. If consecutive samples of similar solutions are to be tested, Steps #1 thru #6 need not be repeated. Simply rinse and drain the stalagmometer twice with the next solution to be tested and then proceed to Step #7.
- B. To measure surface tension in tenths of a drop, refer to attached directions.

CONTENTS

- 1 - Stalagmometer
- 1 - Rubber Bulb
- 1 - Thermometer Clamp
- 1 - Support stand & rod
- 1 - 150 ml Beaker



(FIGURE #1)



DIRECTIONS FOR THE TRAUBE STALAGMOMETER

The Traube Stalagmometer is essentially a pipette with a broad flattened tip which permits large drops of reproducible size to form slowly and finally drop. The stalagmometer tube is used to determine surface tension by the drop weight method, the weight of each drop being calculable from the total volume of the pipette, from the number of drops which fall, and from the density of the sample. For practical purposes, however, it is easier to base the calculation of surface tension on the number of drops which fall, the density of the sample, and the surface tension of water which is used as a reference liquid for factory standardization of the stalagmometer.

The water drop number engraved on the stem of the pipette above the bulb indicates the number of drops of distilled water at 25°C which fall from the tip during passage of a particular volume included between corresponding marks on the two engraved scales. Since drop weights are, to a close approximation, proportional to surface tension, the relationship for calculating tension in terms of drop numbers may be expressed as follows:

$$S = \frac{(S_w) (N_w) (D)}{(N) (D_w)} \quad (1)$$

$$= \frac{(72.0) (N_w) (D)}{(N)} \quad (2)$$

where

- S = Surface tension of sample, dynes per cm.
- S_w = Surface tension of reference liquid (water).
- N = Number of drops of sample (Sample Drop Number), as determined.
- N_w = Water drop number, engraved on the stalagmometer.
- D = Density of sample, grams per cc.
- D_w = Density of water

The factory determination of the water drop number which is characteristic of each stalagmometer is made at a temperature of 25°C. Although this is undoubtedly the best temperature for determinations, very little error is involved when measurements are made at other temperatures. In such cases the factor, (72.0) (N_w), in the numerator of Equation 2 should not be changed. Since the water drop number is inversely proportional to the surface tension of water, the product of the two, (S_w) (N_w) remains essentially independent of any changes in the surface tension caused by temperature alterations. Therefore, without involving much error, the sample drop number and density for any temperature (t) may be substituted in Equation 2 along with the water drop number and water surface tension for 25°C, an essentially correct value of surface tension being thereby calculated for the sample at temperature (t).

Stalagmometer tubes 0-75-920 and 0-75-922 are offset at the bottom to allow more convenient insertion into a small receiver through a rubber stopper. The whole assembly may easily be placed into a thermostat.

To retard the flow of liquid, which should be kept under 20 drops per minute, stalagmometer tubes 0-75-920 and 0-75-922 contain a capillary constriction near the bottom. However, as the viscosities of different liquids vary over a wide range, it is obviously impossible to obtain satisfactory control in all cases by this mean. Tube 0-75-920 is intended to be roughly adapted to liquids of low viscosity, while 0-75-922 is intended for liquids of somewhat higher viscosity.

PROCEDURE

Preparatory to using a stalagmometer tube, it should be thoroughly cleaned by soaking for several hours in nitric acid cleaning solution followed by careful rinsing, the final rinsing to be with distilled water and preferably a portion of the sample. Care should be taken not to touch the polished dropping surface with the fingers as it must be perfectly clean and free of any grease.

The stalagmometer should be solidly mounted in a vertical position free from vibration in such a way as to be conveniently filled and emptied. The sample vessel or receiver may be connected to the stalagmometer by means of a two-hole rubber stopper if exclusion of the atmosphere is desired, or if the apparatus is to be immersed in a water thermostat.

Two or three feet of a good grade of rubber tubing should be connected to the top of the stalagmometer tube, with a screw compressor clamp placed near the free end of the tubing. The clamp should rest solidly on the table so that its manipulation will not jar the stalagmometer or sway the tubing.

It may be found convenient, though not necessary, to add a suitable length of extremely fine capillary glass tubing (thermometer tubing, or tubing made by drawing out a larger capillary) so that, when the screw clamp is entirely open, the proper slow rate of flow (less than 20 drops per minute) will occur. This retarding capillary with screw clamp should be attached to one branch of a Y-tube at the end of the rubber tubing, the other branch being fitted with a second rubber connection and screw clamp used for applying suction when filling the stalagmometer.

After immersing the tip of the stalagmometer in the sample, the fluid is drawn up to a point slightly above the uppermost graduation mark. The sample may be held in the tube by closing the screw clamp. Raise the tip of the stalagmometer above the surface of the sample and release the screw clamp just enough to let the first drop nearly form. Close the clamp before the drop falls and squeeze the rubber tube slowly and carefully, watching simultaneously the water meniscus, the graduated scale, and the drop. Note the exact scale position (x) of the meniscus at the moment the drop falls, and record the reading. After obtaining this initial capillary reading, release the screw clamp just sufficiently to allow the drops to form at a rate slower than 20 per minute, and count them as they fall. As the liquid level arrives at the graduated region below the bulb, the screw clamp should again be closed so that the last drop may be carefully released by squeezing the rubber tubing while watching the position of the meniscus, as was done when starting the determination. The initial capillary reading, when compared with the final capillary reading (y) at the moment the last drop falls, gives the fractional part of the drop number. These readings are obtained by considering the upper mark of each scale to be zero and the bottom one to be 40 which is the total length of the scales in millimeters.

The distance (c) in millimeters on the graduated upper or lower capillary scales, which corresponds to one drop, may be easily determined by carefully squeezing out a drop, keeping the screw clamp closed, and regulating the initial and final positions of the meniscus so that the drop will be included on the scale. It is possible to accomplish this calibration of the capillary scale simultaneously with the determination of the drop number -- i.e., without any refilling of the stalagmometer tube.

The actual drop number is finally calculated by means of the expression

$$N = N_0 + \frac{x - y}{c} \quad (3)$$

where N = Drop number of sample calculated to nearest tenth of a drop.
 N₀ = Whole number of drops counted between capillary scale reads x and y.

x and y are capillary scale readings based on the top mark as zero and the bottom mark as 40; i.e., x and y are the distances in millimeters from the beginning of each scale.

c = Capillary scale calibration in millimeters per drop.

The fractional part of a drop, given by the second part of the above expression may be either positive or negative. Therefore, it should either be added to or subtracted from the whole number of drops (N₀). The sample drop number (N) is substituted in Equation 2 on page one in order to calculate the surface tension.

WHAT TO ORDER

<u>MODEL</u>	<u>PART NO.</u>	<u>FOR</u>	<u>DETERMINES</u>
Stalagmometer	0-75-920	Nickel, Acid Copper, Acid Zinc, Acid Dips, Pickles	Surface tension, for control of wetting agents.
Stalagmometer	0-75-922	Chromium	Surface tension for control of wetting agents
Stalagmometer Kit (includes stand, clamp, filler, bulb & beaker)	0-75-921	Nickel, Acid Copper, Acid Zinc, Acid Dips, Pickles	Surface tension, for control of wetting agents. When ordering specify #0-75-920 or 0-75-922
Stalagmometer Set	0-75-923		Set of 3 for complete range requirements In wood case

Technical Information

LUMA-CHROME Chromium Plating Process

Atotech Luma-Chrome is a mixed catalyst chromium plating process which may be operated over a wide range of chromic acid concentrations. The sulfate primary catalyst is controlled by conventional analytical methods, and adjustments made as required. The secondary catalyst is completely self-regulated, and maintains the proper concentration over the entire temperature and chromic acid concentration ranges. This combination of self-regulated and optional control permits the plater to obtain optimum coverage and brightness at all times.

This process will produce normal results as soon as the bath reaches uniform operating temperature from a cold start. During the heating up period mild agitation is necessary to insure uniform temperature and to produce good deposits.

Installation And Operation of Atotech Luma-Chrome Materials

Atotech Luma-Chrome Compound contains the ingredients necessary to make up a chromium plating solution for decorative plating with the exception of the primary catalyst, sulfate. After the required amount of compound is dissolved and the solution level adjusted, the bath should be analyzed for sulfate and proper adjustments made.

Important Notice Regarding This Information:

The statements, technical information and recommendations contained in this document are based on tests that are believed to be reliable. However, this document is not contractual, and NOTHING IN IT CONSTITUTES A WARRANTY THAT THE GOODS DESCRIBED ARE FIT FOR A PARTICULAR PURPOSE OF CUSTOMER or that their use does not conflict with any existing patent rights. The exclusive source of any warranty and of any other customer rights whatsoever is the written acknowledgement of a customer's order.

atotech
ATO

Atotech Distributing Co. Inc.
10641 N.W. 53rd Street
Orlando, FL 32837

Installation Procedure

1. Plating tanks should be thoroughly cleaned and all traces of previous solutions removed.
2. Fill the plating tank two-thirds full of water and heat to 60°C (140°F).
3. Add the calculated amount of Atotech Luma-Chrome compound and mix thoroughly. A very small quantity of material remains in suspension in the solution. This is essential to the proper operation of the Atotech Luma-Chrome solution.
4. Adjust the solution to the normal operating level.
5. Adjust the temperature to the desired value with thorough stirring.
6. Analyze for sulfate and make proper addition.
7. Install clean Atotech Unichrome lead anodes. Two 3.8 cm diameter (1 ½") round anodes to the running foot of anode bar will normally provide the correct anode-cathode area.
8. Electrolyze the solution for several hours at 6 volts with occasional stirring.

Table I

Chromic Acid Conc.	Chromic Acid Conc.	Atotech Luma-Chrome Required	Atotech Luma-Chrome Required
g/L	oz./gal.	g/L	lbs./100 gal.
150	20	152	127
200	27	202	169
250	33	254	211
300	40	304	253
350	47	354	296
400	53	404	338

Operating Composition And Conditions

1. Constituents

	Nominal Range	Optimum
CrO ₃	150 to 300 g/L (20 to 40 oz./gal.)	250 g/L (32 oz./gal.)
SO ₄ =	.5 to 1.2 g/L (.06 to .16 oz./gal.)	1 g/L (.13 oz./gal.)
Ratio $\frac{\text{CrO}_3}{\text{SO}_4}$	200 to 300	250:1

2. Typical Operating Condition

Temperature	38° to 52°C (100° to 125°F)	46°C (115°F)
Current density	8 to 32 ASD (75 to 300 ASF)	16 ASD (150 ASF)

Solution Maintenance

1. Chromic acid (CrO_3) and sulfate (SO_4) should be determined by chemical analysis on a regular basis.
2. Chromic acid concentration is maintained by daily additions of Atotech Luma-Chrome. To raise the chromic acid concentration 7.5 g/L (1 oz./gal.) will require an addition of 7.6 g/L (6.3 lbs./100 gals.) of Atotech Luma-Chrome.
3. Daily additions of sulfate (as sulfuric acid) are likely to be required. To raise the sulfate (SO_4) concentration .1 g/L will require an addition of approximately 60 ml concentrated 66° Bé H_2SO_4 per kiloliter (or to raise the sulfate (SO_4) concentration .01 oz./gal. will require 5.3 fl. oz./1000 gal.).

Contaminants

Impurities such as iron, copper, nickel, zinc, aluminum, trivalent chromium and chloride which affect all chromium plating systems, similarly affect Atotech Luma-Chrome. Drag-in of nickel plating solutions introduces nickel, sulfate, chloride, and boric acid into the chromium plating solution.

The effect of contaminants is additive and affects the current efficiency of the bath.

As the total combined concentration of metallic impurities increases, all chromium plating processes suffer a loss in performance. It is generally found that when the concentration reaches or exceeds 7.5 g/L (1 oz./gal.), harmful effects may be observed on work with critical coverage areas.

Chloride in a chromium plating bath tends to overcatalyze the bath and may adversely affect the appearance of the chromium deposit.

When the Atotech Luma-Chrome solution is free from contaminants, the chromic acid concentration can be checked with a hydrometer, and Table VI may be used for reference.

Equipment Plating Tank

Tank lining may be flexible polyvinyl chloride material of an approved type, either sheet or sprayed, such as Koroseal or equivalent, or lead alloy.

Anodes

Unichrome or tin-lead alloy anodes are recommended. The anode cross section must be sufficient to carry the required current without overheating.

NOTE: Auxiliary or conforming anodes should be lead or lead-sheathed—not bare steel.

Auxiliary Equipment

The usual ventilation, temperature control, bus bar and other auxiliary equipment specified for the ordinary chromium plating solution is recommended for the Atotech Luma-Chrome solution. Automatic temperature controls are recommended and adequate cooling facilities should be provided. Tantalum is preferred as the construction material for temperature controlling coils or heat exchangers. The 6% antimony-lead alloy is suggested as a second choice. Silicon-iron alloys and titanium should not be used.

The temperature controlling coils and the heat exchangers should be insulated from the steam and cold water lines by means of rubber or plastic connections. The solution pump and heat exchanger should be connected by means of Saran-lined steel pipe. Pumps and fittings should have wetted parts of Durimet 20 alloy or suitable all-plastic material, or should be plastic lined.

Current Supply

A 9-volt DC power source should be available for decorative plating, even though a 6-volt source might be sufficient for some types of work. A 6-volt current source can be used, but the maximum permissible current density may not be available at this limited voltage. Most decorative plating installations will require an 8- or 9-volt current source for efficient operation.

Agitation

Stirring should be sufficient to maintain uniform temperature and concentration of all constituents throughout the bath.

Analytical

Please refer to Atotech Data Sheet No. P-Cr-A-21.

Table II

Note: All units below are Metric

Conversions From Grams/Liter To Total Mls Sulfuric Acid Required

g/L SO ₄ to be added	Tank Size – Liters									
	100	200	300	400	500	600	700	800	900	1000
	Mls 66° Bé (Sp.gr. 1.84, 98.4% strength) Sulfuric Acid Required									
0.1	5.9	11.8	17.7	23.6	29.5	35.4	41.3	47.2	53.1	59.0
0.2	11.8	23.6	35.6	47.7	59.6	70.8	82.6	94.4	106.2	118.0
0.3	17.9	35.8	53.7	71.6	89.5	107.4	125.3	143.2	161.1	179.0
0.4	23.8	47.6	71.4	95.2	119.0	142.8	166.6	190.4	214.2	238.0
0.5	29.5	59.0	88.5	118.0	147.5	177.0	206.5	234.0	265.5	295.0
0.6	35.4	70.8	106.2	141.6	177.0	212.4	247.8	283.2	318.6	354.0
0.7	41.3	82.6	123.9	165.2	206.5	247.8	296.1	330.4	371.7	413.0
0.8	47.2	95.4	131.6	188.8	236.0	283.2	330.4	377.6	404.8	472.0
0.9	53.1	106.2	159.3	212.4	265.5	318.6	371.9	424.8	477.9	531.0
1.0	59.0	118.0	177.0	236.0	295.0	354.0	413.0	472.0	531.0	590.0

Table III

Note: All units below are Metric

Conversion From Grams/Liter To Total Grams Barium Carbonate Required

g/L SO ₄ to be removed	Tank Size—Liters									
	100	200	300	400	500	600	700	800	900	1000
	Grams Barium Carbonate Required									
0.1	20	40	60	80	100	120	140	160	180	200
0.2	40	80	120	160	200	240	280	320	360	400
0.3	60	120	180	240	300	360	420	480	540	600
0.4	80	160	240	320	400	480	560	640	720	800
0.5	100	200	300	400	500	600	700	800	900	1000
0.6	120	240	360	480	600	720	840	960	1080	1200
0.7	140	280	420	560	700	840	980	1120	1260	1400
0.8	160	320	480	640	800	960	1120	1280	1440	1600
0.9	180	360	540	720	900	1080	1260	1440	1620	1800
1.0	200	400	600	800	1000	1200	1400	1600	1800	2000

Table IV

Note: All units below are American

Amount of Sulfuric Acid Required to Raise Sulfate

oz./gal. SO ₄ to be added	Tank Size—Gallons									
	100	200	300	400	500	600	700	800	900	1000
	Fluid Ounces of 66° Bé (Sp. gr. 1.84, 98.4% strength) Sulfuric Acid Required									
0.01	0.5	1.1	1.6	2.2	2.6	3.2	3.8	4.3	4.9	5.4
0.02	1.1	2.2	3.3	4.3	5.4	6.5	7.6	8.7	9.8	10.9
0.03	1.6	3.3	4.9	5.5	8.2	9.8	11.4	13.0	14.7	16.3
0.04	2.2	4.3	6.5	8.7	10.9	13.0	15.2	17.4	19.5	21.7
0.05	2.7	5.4	7.2	10.9	13.6	16.3	19.0	21.8	25.4	27.2
0.06	3.3	6.5	9.8	13.0	16.3	19.6	22.8	26.1	29.3	32.6
0.07	3.8	7.6	11.4	15.2	19.0	22.8	26.6	30.4	34.2	38.0
0.08	4.3	8.6	12.9	17.2	21.5	25.8	30.1	34.4	38.7	43.0
0.09	4.9	9.8	14.7	19.6	24.5	29.4	34.3	39.2	44.1	49.0
0.10	5.4	10.8	16.2	21.6	27.0	32.4	37.8	43.2	48.6	54.0

Table V

Note: All units below are American

Amount of Barium Carbonate Required to Lower Sulfate

oz./gal. SO ₄ to be removed	Tank Size – Gallons									
	100	200	300	400	500	600	700	800	900	1000
	Ounces of Barium Carbonate Required									
0.01	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
0.02	4.0	8.0	12.0	16.0	20.0	24.0	28.0	32.0	36.0	40.0
0.03	6.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0	54.0	60.0
0.04	8.0	16.0	24.0	32.0	40.0	48.0	56.0	64.0	72.0	80.0
0.05	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0	90.0	100.0
0.06	12.0	24.0	36.0	48.0	60.0	72.0	84.0	96.0	108.0	120.0
0.07	14.0	28.0	42.0	56.0	70.0	84.0	98.0	112.0	126.0	140.0
0.08	16.0	32.0	48.0	64.0	80.0	96.0	112.0	128.0	144.0	160.0
0.09	18.0	36.0	54.0	72.0	90.0	108.0	126.0	144.0	162.0	180.0
0.10	20.0	40.0	60.0	80.0	100.0	120.0	140.0	160.0	180.0	200.0

Table VI

Chromic Acid Concentration

Specific Gravity at 15°C 4°C	Baumé at 60°F	Chromic Acid g/L	Chromic Acid oz./gal.
	14.40	157	21.0
	15.50	172	22.9
	16.70	186	24.8
	17.80	201	26.8
	18.90	216	28.8
	20.00	230	30.6
	21.10	243	32.6
	22.20	258	34.4
	23.20	273	36.4
	24.20	290	38.6
	25.20	302	40.3
	26.20	317	42.3
	27.10	332	44.2

Table VII

Cathode Efficiency

ASD	C.D.ASI	Luma-Chrome 43°C (110°F)	Ordinary 43°C (110°F)
3.9	0.25	8.8	4.8
7.7	0.50	12.6	9.6
15.5	1.0	16.6	14.9
22.7	1.5	18.2	16.7
31.0	2.0	19.8	18.5

WASTE DISPOSAL

This material must be disposed of in accordance with all applicable federal, state, and local regulations. Consult the MSDS for additional regulatory information.

GENERAL SAFETY PRECAUTIONS

Avoid direct contact with this material. Do not inhale associated mist, vapors, and/or dust. As applicable, keep exposure below the limits recommended by OSHA, ACGIH, the manufacturer, and others. Wash contaminated clothing before reuse. Always comply with the Hazard Communication Standard, 29CFR1910.1200; emergency showers and eyewashes must be available.

It is recommended that the plating chemistry product(s) referred to in this Technical Information sheet be used: (1) in accordance with the information provided in product specific MSDS; and (2) in compliance with all appropriate requirements and guidelines established by OSHA, NIOSH, ACGIH, NFPA, and others.

FIRST-AID RECOMMENDATIONS

<u>Types of Exposure</u>	<u>Recommendations</u>
Eye	Flush with water for at least 15 minutes.
Skin	Wash thoroughly with soap and water.
Inhalation	Remove to fresh air immediately.
Ingestion	Give water or milk (if conscious and not having convulsions).

REVIEW MSDS BEFORE USING THIS PLATING CHEMISTRY AND FOR PRODUCT SPECIFIC INFORMATION. A precautionary approach should be used when there is potential for chemical exposure -- this includes minimizing exposure potential, rapid decontamination, and medical follow-up.

NOTE: A Material Safety Data Sheet (MSDS) for this product is available on request from Atotech USA Inc., Customer Service/Sales Support Group, Two Riverview Drive, P.O. Box 6768, Somerset, New Jersey 08875-6768.

TELEPHONE NUMBERS

Customer Service/Sales Support Group: (908) 302-3538 (MSDS requests)
Product Safety Department: (908) 302-3549 (regulatory inquiries and emergencies)

TO PLACE AN ORDER: 1-800-PLATING

TITLE V AIR QUALITY GENERAL PERMIT
INSPECTION SUMMARY REPORT



TYPE OF INSPECTION: ANNUAL COMPLAINT/DISCOVERY RE-INSPECTION

TIME IN: 230 TIME OUT: 315 AIRS ID#: 0250724
 TYPE OF FACILITY: CHROMIUM ELECTROPLATING / ANODIZING
 FACILITY NAME: AMERICAN Bumper Corp. DATE: 8-14-97
 FACILITY LOCATION: 7851 NW 64 ST.
MIAMI, FL 33166 FAX 592-3199
 RESPONSIBLE OFFICIAL: ELIADO MORFA PHONE NUMBER: 592-6360

- Based on the results of the compliance requirements evaluated during this inspection, the facility is found to be in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.);
- Based on the results of the compliance requirements evaluated during this inspection, the following compliance discrepancies were noted:

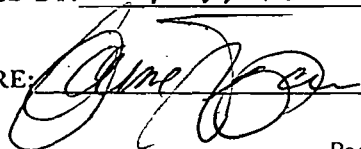
COMPLIANCE REQUIREMENT/PROBLEM	FOLLOW-UP ACTION REQUIRED

COMMENTS: Facility is in compliance.

The Annual Compliance Certification form has been properly certified and submitted to the inspector. YES NO

DATE OF NEXT INSPECTION: 8-98
(Approximate)

INSPECTION CONDUCTED BY: TAMIE NAZARLO
(Please Print)

INSPECTOR'S SIGNATURE:  PHONE NUMBER: 3726922

AIRS ID#: 0250724

all
Revised 10/10/96

**CHROMIUM ELECTROPLATING/ANODIZING
AIR QUALITY GENERAL PERMIT
ANNUAL COMPLIANCE CERTIFICATION FORM**

FACILITY NAME: <u>AMERICAN BUMPER CORP.</u>	DATE: <u>8-14-97</u>
FACILITY LOCATION: <u>7851 NW 44 ST.</u> <u>MIAMI, FL. 33166</u>	

Annual Reporting Period: 8-23 1996 TO 8-14 1997

Based on each term or condition of the Title V general air permit, my facility has remained in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.), during the period covered by this statement. YES NO

If NO, complete the following:

#1. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____

Action(s) taken to achieve compliance: _____

Method used to demonstrate compliance: _____

#2. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____

Action(s) taken to achieve compliance: _____

Method used to demonstrate compliance: _____

RECEIVED
AUG 22 1997
Bureau of Air Monitoring
& Mobile Sources

As the responsible official, I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete.

RESPONSIBLE OFFICIAL: DELAUDIO G. MORFA *[Signature]* 8/18/97
Name (Please Print) Signature Date

*This form is made available to you as an aid in order to meet your annual compliance certification requirements. It is at the discretion of the responsible official to use this form.

RECEIVED

CHROMIUM ELECTROPLATING/ANODIZING AUG 22 1997

TITLE V GENERAL PERMIT COMPLIANCE INSPECTION CHECKLIST

Bureau of Air Monitoring & Mobile Sources

TYPE OF INSPECTION: ANNUAL [checked] COMPLAINT/DISCOVERY [] RE-INSPECTION []

AIRS ID#: 0250724 TIME IN: 2:30 TIME OUT: 3:15 FACILITY NAME: AMERICAN BUMPER CORP. FACILITY LOCATION: 7851 NW 64 ST MIAMI FL. 33166

PART I: NOTIFICATION

- (check appropriate box) 1. Facility notified DARM by 9/1/96 [checked] 2. New facility notified DARM 30 days prior to startup [] 3. Facility failed to notify DARM to use a general permit []

PART II: CLASSIFICATION

Facility type(s)/applicable standard indicated on notification form: Hard Chromium Plating a. Existing Large (0.015 mg/dscm) [] b. Existing Small (0.03 mg/dscm) [] c. New (0.015 mg/dscm) [] d. Alternative Standard for existing facilities (0.03 mg/dscm) using a rolling average of rectifier capacity (less than 60 million A-hr/year) [] Decorative Chromium Plating/Anodizing a. Chromic Acid Bath Emissions of < 0.01/mg/dscm (4.4x10^-6 gr/dscf) [] Surface tension of <= 45 dynes/cm (3.1x10^-3 lb-f/ft) [checked] May only be selected if a wetting agent is used. b. Trivalent Chromium Bath With wetting agent [] Without wetting agent <0.01mg/dscm (4.4x10^-6 gr/dscf) [] c. Chromium Anodizing Emissions of <0.01 mg/dscm (4.4x10^-6 gr/dscf) [] Surface tension of 45 dynes/cm (3.1x10^-3 lb-f/ft) [] May only be selected if a wetting agent is used.

PART III: CONTROL TECHNOLOGY

Control device selected	In use?
1. <input type="checkbox"/> Composite Mesh Pad	<input type="checkbox"/> Y <input type="checkbox"/> N
2. <input type="checkbox"/> Fiber Bed Mist Eliminator	<input type="checkbox"/> Y <input type="checkbox"/> N
3. <input type="checkbox"/> Packed Bed Scrubber	<input type="checkbox"/> Y <input type="checkbox"/> N
4. <input type="checkbox"/> Packed Bed Scrubber/Composite Mesh Pad	<input type="checkbox"/> Y <input type="checkbox"/> N
5. <input type="checkbox"/> Foam Blanket Fume Suppressant	<input type="checkbox"/> Y <input type="checkbox"/> N
6. <input checked="" type="checkbox"/> Fume Suppressant w/ Wetting Agent	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Has the facility conducted an initial performance test to establish monitoring parameters? Y N N/A
(Not required for sources using a wetting agent or 1-inch foam blanket thickness)

PART IV: RECORDKEEPING AND REPORTING REQUIREMENTS

Has the responsible official maintained the following records?

1. Quarterly inspection records for add-on air pollution control devices and monitoring equipment. <i>(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)</i>	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A						
2. Operations and Maintenance Plan (OMP). <i>(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)</i>	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A						
3. Maintenance records for the source, add-on pollution control devices, and monitoring equipment (equipment identified, date performed, description).	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
4. Records of date of occurrence, duration, cause, and corrective action of each malfunction of process, add-on pollution control device, and monitoring equipment.	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
5. Results of all performance tests.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A						
6. Records of monitoring data. <i>(not applicable to trivalent chromium baths using a wetting agent)</i>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
<table border="0"> <tr> <td>Composite Mesh Pad Measure the pressure drop across the CMP daily.</td> <td>Packed Bed Scrubber Measure the pressure drop across the PBS and the inlet velocity daily.</td> </tr> <tr> <td>Fiber-Bed Mist Eliminator Measure the pressure drop across the FBME and the upstream device daily.</td> <td>Packed Bed Scrubber/Composite Mesh Pad Measure the pressure drop across the CMP daily.</td> </tr> <tr> <td>Foam Blanket Fume Suppressant Measure the foam blanket thickness at the appropriate interval.</td> <td>Fume Suppressant w/ Wetting Agent Measure the surface tension at the appropriate interval.</td> </tr> </table>	Composite Mesh Pad Measure the pressure drop across the CMP daily.	Packed Bed Scrubber Measure the pressure drop across the PBS and the inlet velocity daily.	Fiber-Bed Mist Eliminator Measure the pressure drop across the FBME and the upstream device daily.	Packed Bed Scrubber/Composite Mesh Pad Measure the pressure drop across the CMP daily.	Foam Blanket Fume Suppressant Measure the foam blanket thickness at the appropriate interval.	Fume Suppressant w/ Wetting Agent Measure the surface tension at the appropriate interval.	
Composite Mesh Pad Measure the pressure drop across the CMP daily.	Packed Bed Scrubber Measure the pressure drop across the PBS and the inlet velocity daily.						
Fiber-Bed Mist Eliminator Measure the pressure drop across the FBME and the upstream device daily.	Packed Bed Scrubber/Composite Mesh Pad Measure the pressure drop across the CMP daily.						
Foam Blanket Fume Suppressant Measure the foam blanket thickness at the appropriate interval.	Fume Suppressant w/ Wetting Agent Measure the surface tension at the appropriate interval.						
7. Purchase records of wetting agent components.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
8. Records of the date and time that fume suppressants are added to the bath.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
9. Records of rectifier capacity, if used to determine facility size.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A						
10. Records of the total process operating time.	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
11. Records identifying specific periods of excess emissions.	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A						
12. Startup, Shutdown & Malfunction Plan	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N						

PART V: ADDITIONAL SITE INFORMATION

[Empty box for additional site information]

ELINDO GEORGE MORFA

Name of Responsible Official

JOHN NAZARIO

Inspector's Name

8-14-97

Date of Inspection

[Signature]

Inspector's Signature

8-98

Approximate Date of Next Inspection

RECEIVED

JAN 15 1999

Bureau of Air Monitoring & Mobile Sources

CHROMIUM ELECTROPLATING/ANODIZING
TITLE V GENERAL PERMIT
COMPLIANCE INSPECTION CHECKLIST

TYPE OF INSPECTION: ANNUAL COMPLAINT/DISCOVERY
RE-INSPECTION

AIRS ID#: 250724 TIME IN: 1:25 pm TIME OUT: 1:55 pm
FACILITY NAME: American Bumper Corp.
FACILITY LOCATION: 7851 NW 104 St.
Miami, FL 33166

PART I: NOTIFICATION

(check appropriate box)

1. Facility notified DARM by 9/1/96
2. New facility notified DARM 30 days prior to startup
3. Facility failed to notify DARM to use a general permit

PART II: CLASSIFICATION

Facility type(s)/applicable standard indicated on notification form:

Hard Chromium Plating

a. Existing Large (0.015 mg/dscm) b. Existing Small (0.03 mg/dscm)
c. New (0.015 mg/dscm) d. Alternative Standard for existing facilities
(0.03 mg/dscm) using a rolling average of
rectifier capacity (less than 60 million A-hr/year)

Decorative Chromium Plating/Anodizing

a. Chromic Acid Bath Emissions of < 0.01 mg/dscm (4.4x10⁻⁶ gr/dscf)
Surface tension of ≤ 45 dynes/cm (3.1x10⁻³ lb-f/ft)
May only be selected if a wetting agent is used.

b. Trivalent Chromium Bath With wetting agent
Without wetting agent < 0.01 mg/dscm (4.4x10⁻⁶ gr/dscf)

c. Chromium Anodizing Emissions of < 0.01 mg/dscm (4.4x10⁻⁶ gr/dscf)
Surface tension of 45 dynes/cm (3.1x10⁻³ lb-f/ft)
May only be selected if a wetting agent is used.

ARMS
12/22/98
DS

12/14/98
MB

PART III: CONTROL TECHNOLOGY

Control device selected	In use?
1. <input type="checkbox"/> Composite Mesh Pad	<input type="checkbox"/> Y <input type="checkbox"/> N
2. <input type="checkbox"/> Fiber Bed Mist Eliminator	<input type="checkbox"/> Y <input type="checkbox"/> N
3. <input type="checkbox"/> Packed Bed Scrubber	<input type="checkbox"/> Y <input type="checkbox"/> N
4. <input type="checkbox"/> Packed Bed Scrubber/Composite Mesh Pad	<input type="checkbox"/> Y <input type="checkbox"/> N
5. <input type="checkbox"/> Foam Blanket Fume Suppressant	<input type="checkbox"/> Y <input type="checkbox"/> N
6. <input checked="" type="checkbox"/> Fume Suppressant w/ Wetting Agent	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Has the facility conducted an initial performance test to establish monitoring parameters? Y N N/A
(Not required for sources using a wetting agent or 1-inch foam blanket thickness)

PART IV: RECORDKEEPING AND REPORTING REQUIREMENTS

Has the responsible official maintained the following records?

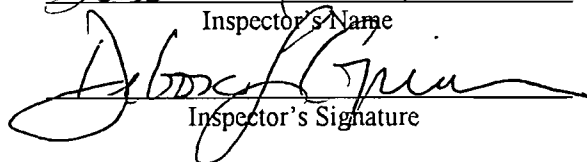
1. Quarterly inspection records for add-on air pollution control devices and monitoring equipment. <i>(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)</i>	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A
2. Operations and Maintenance Plan (OMP). <i>(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)</i>	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A
3. Maintenance records for the source, add-on pollution control devices, and monitoring equipment (equipment identified, date performed, description).	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
4. Records of date of occurrence, duration, cause, and corrective action of each malfunction of process, add-on pollution control device, and monitoring equipment.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
5. Results of all performance tests.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A
6. Records of monitoring data. <i>(not applicable to trivalent chromium baths using a wetting agent)</i>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A
Composite Mesh Pad Measure the pressure drop across the CMP daily.	Packed Bed Scrubber Measure the pressure drop across the PBS and the inlet velocity daily.
Fiber-Bed Mist Eliminator Measure the pressure drop across the FBME and the upstream device daily.	Packed Bed Scrubber/Composite Mesh Pad Measure the pressure drop across the CMP daily.
Foam Blanket Fume Suppressant Measure the foam blanket thickness at the appropriate interval.	Fume Suppressant w/ Wetting Agent Measure the surface tension at the appropriate interval.
7. Purchase records of wetting agent components.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A
8. Records of the date and time that fume suppressants are added to the bath.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A
9. Records of rectifier capacity, if used to determine facility size.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A
10. Records of the total process operating time.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N
11. Records identifying specific periods of excess emissions.	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA
12. Startup, Shutdown & Malfunction Plan	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

PART V: ADDITIONAL SITE INFORMATION

Responsible Official monitors the surface tension after every 10 plating operations. This is actually more frequent than the required once every 8 hours of operation time as required by the rule, because each plating operation takes a maximum of a couple of minutes.

Eladio George Morfa
Name of Responsible Official

Debera Griner
Inspector's Name


Inspector's Signature

12/9/98
Date of Inspection

12/99
Approximate Date of Next Inspection

TITLE V AIR QUALITY GENERAL PERMIT
INSPECTION SUMMARY REPORT

TYPE OF INSPECTION: ANNUAL COMPLAINT/DISCOVERY RE-INSPECTION RECEIVED

TIME IN: 1:25 pm TIME OUT: 1:55 pm AIRS ID#: 250724
 TYPE OF FACILITY: Decorative Chromium Electroplating
 FACILITY NAME: American Bumper Corp DATE: 12/9/98
 FACILITY LOCATION: 7851 NW 104 St
 Miami, FL
 RESPONSIBLE OFFICIAL: Eladio Morfa PHONE NUMBER: (305) 592-6360

JAN 15 1999

Bureau of Air Monitoring
& Mobile Sources

- Based on the results of the compliance requirements evaluated during this inspection, the facility is found to be in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.).
- Based on the results of the compliance requirements evaluated during this inspection, the following compliance discrepancies were noted:

COMPLIANCE REQUIREMENT/PROBLEM	FOLLOW-UP ACTION REQUIRED

COMMENTS:

The Annual Compliance Certification form has been properly certified and submitted to the inspector. YES NO

DATE OF NEXT INSPECTION: 12/99 (Approximate)

INSPECTION CONDUCTED BY: Debora Griner (Please Print)

SPECTOR'S SIGNATURE: *Debora Griner* PHONE NUMBER: (305) 372-0925

AW

DRY CLEANER AIR QUALITY GENERAL PERMIT
ANNUAL COMPLIANCE CERTIFICATION FORM

FACILITY NAME: <u>American Bumper Corp.</u>	RECEIVED DATE: <u>12/9/98</u>
FACILITY LOCATION: <u>7851 NW 04 St. Miami, FL 33166</u>	JAN 15 1999 Bureau of Air Monitoring & Mobile Sources

Annual Reporting Period: 9 19 97 TO 9 19 98

Based on each term or condition of the Title V general air permit, my facility has remained in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.), during the period covered by this statement. YES NO

If NO, complete the following:

#1. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____

Action(s) taken to achieve compliance: _____

Method used to demonstrate compliance: _____

#2. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____

Action(s) taken to achieve compliance: _____

Method used to demonstrate compliance: _____

As the responsible official, I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, my annual consumption of perchloroethylene solvent, based upon rolling averages of purchase receipts, does not exceed 2,100 gallons per year for dry-to dry facilities or 1,800 gallons per year for transfer or combination facilities.

RESPONSIBLE OFFICIAL: ELADIO GEORGE MORFA [Signature] 12-9-98
Name (Please Print) Signature Date

*This form is made available to you as an aid in order to meet your annual compliance certification requirements. It is at the discretion of the responsible official to use this form.

DEPT. OF ENVIRONMENTAL 248955
RESOURCES MANAGEMENT (DERM)
AIR QUALITY MANAGEMENT DIVISION
33 S.W. SECOND AVENUE, SUITE 900
MIAMI, FLORIDA 33130-1540

**CHROMIUM ELECTROPLATING/ANODIZING
TITLE V GENERAL PERMIT
COMPLIANCE INSPECTION CHECKLIST**

RECEIVED
OCT 9 2000
Bureau of Air Monitoring
& Mobile Sources

✓ **TYPE OF INSPECTION:** ANNUAL ~~(INS1)~~ (INS2, INS3) COMPLAINT/DISCOVERY (CI)
RE-INSPECTION (FUI)

AIRS ID#: 6250724 DATE: 9/15/00 TIME IN: 2:25pm TIME OUT: 3:00pm
 FACILITY NAME: American Bumper Corp.
 FACILITY LOCATION: 7851 NW 64 St.
Miami, FL 33166
 RESPONSIBLE OFFICIAL: Eladio Morfa PHONE: (305)
 CONTACT NAME: _____ PHONE: _____

PART I: NOTIFICATION

(check appropriate box) Facility Compliance Status: IN

1. New facility notified DARM 30 days prior to startup	<input type="checkbox"/>	(ARMS Data)	MNC	<input type="checkbox"/>
2. Facility failed to notify DARM to use a general permit	<input type="checkbox"/>		SNC	<input type="checkbox"/>

PART II: CLASSIFICATION

Facility type(s)/applicable standard indicated on notification form:
Hard Chromium Plating

a. Existing Large (0.015 mg/dscm)	<input type="checkbox"/>	b. Existing Small (0.03 mg/dscm)	<input type="checkbox"/>
c. New (0.015 mg/dscm)	<input type="checkbox"/>	d. Alternative Standard for existing facilities (0.03 mg/dscm) using a rolling average of rectifier capacity (less than 60 million A-hr/year)	<input type="checkbox"/>

Decorative Chromium Plating/Anodizing

a. Chromic Acid Bath	Emissions of ≤ 0.01 mg/dscm (4.4×10^{-6} gr/dscf)	<input type="checkbox"/>
	Surface tension of ≤ 45 dynes/cm (3.1×10^{-3} lb-f/ft) <i>May only be selected if a wetting agent is used.</i>	<input checked="" type="checkbox"/>
b. Trivalent Chromium Bath	With wetting agent	<input type="checkbox"/>
	Without wetting agent ≤ 0.01 mg/dscm (4.4×10^{-6} gr/dscf)	<input type="checkbox"/>
c. Chromium Anodizing	Emissions of ≤ 0.01 mg/dscm (4.4×10^{-6} gr/dscf)	<input type="checkbox"/>
	Surface tension of ≤ 45 dynes/cm (3.1×10^{-3} lb-f/ft) <i>May only be selected if a wetting agent is used.</i>	<input type="checkbox"/>

9/25/00
AG

PART III: CONTROL TECHNOLOGY

Control device selected	In use?
1. <input type="checkbox"/> Composite Mesh Pad	<input type="checkbox"/> Y <input type="checkbox"/> N
2. <input type="checkbox"/> Fiber Bed Mist Eliminator	<input type="checkbox"/> Y <input type="checkbox"/> N
3. <input type="checkbox"/> Packed Bed Scrubber	<input type="checkbox"/> Y <input type="checkbox"/> N
4. <input type="checkbox"/> Packed Bed Scrubber/Composite Mesh Pad	<input type="checkbox"/> Y <input type="checkbox"/> N
5. <input type="checkbox"/> Foam Blanket Fume Suppressant	<input type="checkbox"/> Y <input type="checkbox"/> N
6. <input checked="" type="checkbox"/> Fume Suppressant w/ Wetting Agent	<input type="checkbox"/> Y <input type="checkbox"/> N

Has the facility conducted an initial performance test to establish monitoring parameters? Y N N/A
(Not required for sources using a wetting agent or 1-inch foam blanket thickness)

PART IV: RECORDKEEPING AND REPORTING REQUIREMENTS

Has the responsible official maintained the following records?

- Quarterly inspection records for add-on air pollution control devices and monitoring equipment. *(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)* Y N N/A
- Operations and Maintenance Plan (OMP). *(applicable only to a facility using a packed bed scrubber, fiber-bed mist eliminator, or composite mesh pad)* Y N N/A
- Maintenance records for the source, add-on pollution control devices, and monitoring equipment (equipment identified, date performed, description). Y N
- Records of date of occurrence, duration, cause, and corrective action of each malfunction of process, add-on pollution control device, and monitoring equipment. Y N NA
- Results of all performance tests. Y N N/A
- Records of monitoring data. *(not applicable to trivalent chromium baths using a wetting agent)* Y N N/A

Composite Mesh Pad Measure the pressure drop across the CMP daily.	Packed Bed Scrubber Measure the pressure drop across the PBS and the inlet velocity daily.
Fiber-Bed Mist Eliminator Measure the pressure drop across the FBME and the upstream device daily.	Packed Bed Scrubber/Composite Mesh Pad Measure the pressure drop across the CMP daily.
Foam Blanket Fume Suppressant Measure the foam blanket thickness at the appropriate interval.	Fume Suppressant w/ Wetting Agent Measure the surface tension at the appropriate interval.

- Purchase records of wetting agent components. Y N N/A
- Records of the date and time that fume suppressants are added to the bath. Y N N/A
- Records of rectifier capacity, if used to determine facility size. Y N N/A
- Records of the total process operating time. Y N
- Records identifying specific periods of excess emissions. Y N NA
- Startup, Shutdown & Malfunction Plan Y N

PART V: ADDITIONAL SITE INFORMATION

* Fumetrol 140E

Fume + Spray Suppressant
Wetting Agent and Foam Blanket combined

* Usually only plates on Wed.'s and
sometimes on Fri. afternoons.

Deborah Griner
Inspector's Name

Deborah Griner
Inspector's Signature

9/15/00
Date of Inspection

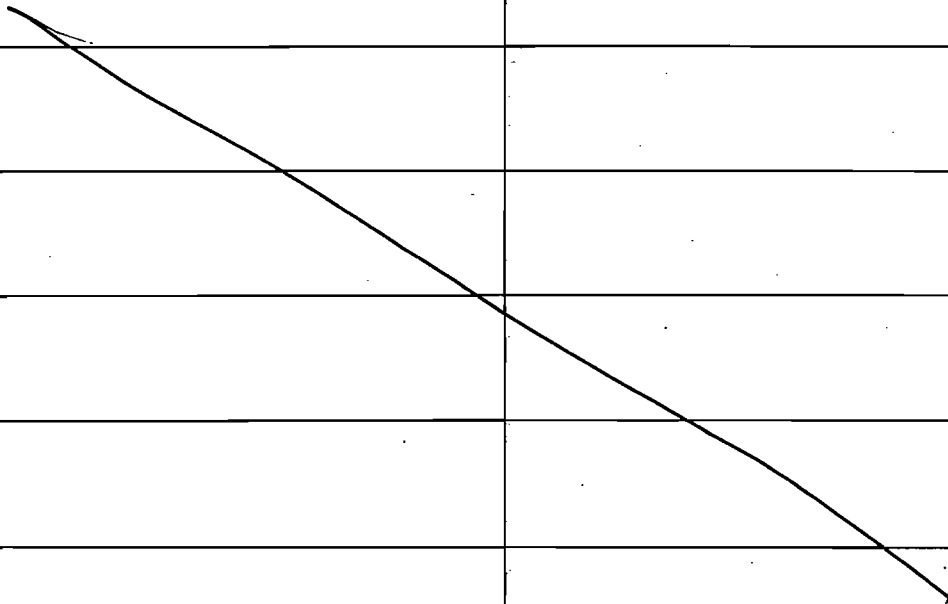
9/01
Approximate Date of Next Inspection

**TITLE V AIR QUALITY GENERAL PERMIT
INSPECTION SUMMARY REPORT**

TYPE OF INSPECTION: ANNUAL COMPLAINT/DISCOVERY RE-INSPECTION

TIME IN: 2:25 pm TIME OUT: 3:00 pm AIRS ID#: 0250724
 TYPE OF FACILITY: Chrome Electroplater (Decorative)
 FACILITY NAME: American Bumper Corp. DATE: 9/15/00
 FACILITY LOCATION: 7851 NW 64 St.
Miami, FL 33166
 RESPONSIBLE OFFICIAL: Eladio Morfa PHONE NUMBER: (305) 592-6360

- Based on the results of the compliance requirements evaluated during this inspection, the facility is found to be in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.).
- Based on the results of the compliance requirements evaluated during this inspection, the following compliance discrepancies were noted:

COMPLIANCE REQUIREMENT/PROBLEM	FOLLOW-UP ACTION REQUIRED
	

COMMENTS:

The Annual Compliance Certification form has been properly certified and submitted to the inspector. YES NO

DATE OF NEXT INSPECTION: 9/01 (Approximate)

INSPECTION CONDUCTED BY: Deborah Griner (Please Print)

INSPECTOR'S SIGNATURE: [Signature] PHONE NUMBER: (305) 372-0936

ACC

**DRY CLEANER AIR QUALITY GENERAL PERMIT
ANNUAL COMPLIANCE CERTIFICATION FORM**

FACILITY NAME: American Bumper Corp. DATE: 9/15/00
 FACILITY LOCATION: 7851 NW 04 St.
Miami, FL 33166

Annual Reporting Period: 9 1999 TO 9 2000

Based on each term or condition of the Title V general air permit, my facility has remained in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.), during the period covered by this statement. YES NO

If NO, complete the following:

#1. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____
 Action(s) taken to achieve compliance: _____
 Method used to demonstrate compliance: _____

#2. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____
 Action(s) taken to achieve compliance: _____
 Method used to demonstrate compliance: _____

As the responsible official, I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, my annual consumption of perchloroethylene solvent, based upon rolling averages of purchase receipts, does not exceed 2,100 gallons per year for dry-to dry facilities or 1,800 gallons per year for transfer or combination facilities.

RESPONSIBLE OFFICIAL: Eladio Mofa [Signature] 9/15/00
 Name (Please Print) Signature Date

*This form is made available to you as an aid in order to meet your annual compliance certification requirements. It is at the discretion of the responsible official to use this form.

5  THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

300383 ✓

Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

TOTAL AMOUNT DUE: \$50.00

Do **NOT** Remove Label

AIRS ID#0250724
AMERICAN BUMPER CORPORATION
ELADIO GEORGE MORFA
7851 NW 64TH STREET
MIAMI FL 33166

FOR GOVERNMENT USE ONLY
Org.: 37550101000 EO: B1
Fund: 20-2-035001
Obj.: 002273

THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

0354328

Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

TOTAL AMOUNT DUE: \$50.00

Do NOT Remove Label

AIRS ID # 0250724
AMERICAN BUMPER CORPORATION
ELADIO GEORGE MORFA
7851 NW 64TH STREET
MIAMI FL 33166

FOR GOVERNMENT USE ONLY
Org.: 37550101000 EO: B1
Fund: 20-2-035001
Obj.: 002273

RECEIVED
DEC 21 1998
Bureau of Air Monitoring
& Mobile Sources
RECEIVED
MAIL ROOM
DEC 18 99

DRY CLEANER AIR QUALITY GENERAL PERMIT
ANNUAL COMPLIANCE CERTIFICATION FORM

Alle

AIRS ID#0250724

AMERICAN BUMPER CORPORATION
 ELADIO GEORGE MORFA
 7851 NW 64TH STREET
 MIAMI FL 33166

Do NOT Remove Label

Annual Reporting Period: JAN. 13 19 98 TO JAN 12 19 99

Based on each term or condition of the Title V general air permit, my facility has remained in compliance with DEP Rule 62-213.300, Florida Administrative Code (F.A.C.), during the period covered by this statement. YES NO

If NO, complete the following:

#1. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

RECEIVED

RECEIVED
FACILITY ROOM
JAN 20 98

Exact period of non-compliance: from _____ to _____

Action(s) taken to achieve compliance: _____

Method used to demonstrate compliance: _____

JAN 22 1998
Bureau of Air Monitoring
& Mobile Sources

#2. Term or condition of the general permit that has not been in continuous compliance during the reporting period stated above:

Exact period of non-compliance: from _____ to _____

Action(s) taken to achieve compliance: _____

Method used to demonstrate compliance: _____

As the responsible official, I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, my annual consumption of perchloroethylene solvent, based upon purchase receipts, does not exceed 2,100 gallons per year for dry-to dry facilities or 1,800 gallons per year for transfer or combination facilities.

RESPONSIBLE OFFICIAL: E. GEORGE MORFA *Alle G. JF* 1-13-98
 Name (Please Print) Signature Date

*This form is made available to you as an aid in order to meet your annual compliance certification requirements. It is at the discretion of the responsible official to use this form.

THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

258531 ✓

Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

RECEIVED
MAIL ROOM

JAN 21 97

TOTAL AMOUNT DUE: \$50.00

Do **NOT** Remove Label

AIRS ID# 0250724
AMERICAN BUMPER CORPORATION
ELADIO GEORGE MORFA
7851 NW 64TH STREET
MIAMI FL 33166

FOR GOVERNMENT USE ONLY
Org.: 37550101000 EO: B1
Fund: 20-2-035001
Obj.: 002273

Z 210 662 494

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

7 AIRS ID # 0250724001AG
 ELADIO GEORGE MORFA
 AMERICAN BUMPER CORPORATION
 7851 NW 64TH STREET
 MIAMI FL 33166

PS Form 3800, April 1995

Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1 Article Addressed to:

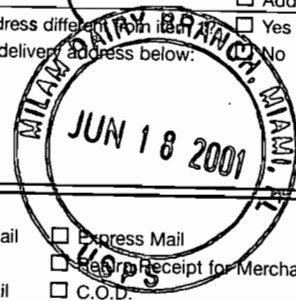
7 AIRS ID # 0250724001AG
 ELADIO GEORGE MORFA
 AMERICAN BUMPER CORPORATION
 7851 NW 64TH STREET
 MIAMI FL 33166

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

C. Signature Agent
 [Signature] Addressee

D. Is delivery address different from item 1? Yes
 No
 If YES, enter delivery address below:



3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2 Article Number (Copy from service label)

Z 210 662 494

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

BUR. OF AIR MONITORING & MOBILE SOURCES
DEPT. OF ENVIRONMENTAL PROTECTION
MAIL STATION 5510
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

Bureau of Air Monitoring
& Mobile Sources

JUN 25 2001

RECEIVED



THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

849102

Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

RECEIVED
MAIL ROOM
JAN 31 00

TOTAL AMOUNT DUE: \$50.00

Do NOT Remove Label

Bureau of Air Monitoring
& Mobile Sources

FEB 2 2000

RECEIVED

AIRS ID # 0250724
AMERICAN BUMPER CORPORATION
ELADIO GEORGE MORFA
7851 NW 64TH STREET
MIAMI FL 33166

FOR GOVERNMENT USE ONLY
Org.: 37550101000 EO: B1
Fund: 20-2-035001
Obj.: 002273

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only, No Insurance Coverage Provided)

7000 0600 0026 4126 6572

[Redacted area]

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		

AMERICAN BUMPER CORPORATION
 ELADIO GEORGE MORFA
 7851 NW 64TH STREET
 MIAMI FL 33166

AIRS ID # 0250724

PS Form 3800, February 2000

See Reverse for Instructions

SENDER:

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

AIRS ID # 0250724
 AMERICAN BUMPER CORPORATION
 ELADIO GEORGE MORFA
 7851 NW 64TH STREET
 MIAMI FL 33166

2. Article Number (Copy from service label)

7000 0600 0026 4126 6572

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

2-8-01

C. Signature

X 

- Agent
 Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

tip

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

BUR. OF AIR MONITORING & MOBILE SOURCES
DEPT. OF ENVIRONMENTAL PROTECTION
MAIL STATION 5510
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400





THIS PORTION MUST BE ATTACHED TO REMITTANCE FOR PROPER HANDLING

405662 FEB20 2001

Please include your AIRS ID# on your check or money order. This number can be found below on your mailing label.

TOTAL AMOUNT DUE: \$50.00

Do NOT Remove Label

AIRS ID # 0250724
AMERICAN BUMPER CORPORATION
ELADIO GEORGE MORFA
7851 NW 64TH STREET
MIAMI FL 33166

FOR GOVERNMENT USE ONLY
Org.: 37550101000 EO: A1
Fund: 20-2-035001
Obj.: 002273