

Dieter's Toxic Reduction Plan

Table of Contents

Statement of Intent and Objective of the Plan	Page 1
Facility Information	Page 1
Stages and Processes that Use Chromium (Cr)	Page 2
Tracking and quantification for Chromium at the Process Level	Page 5
Cost Estimates for Cr at the facility level	Page 5
Identification and Analysis of Toxic Substance Reduction Options for Cr	Page
Implementation of Options for Reduction of the Use of Cr at the Facility	Page
Planner Recommendations and Rationale	Page
Plan Certifications for Chromium	Page
References	Page

1. Statement of Intent and Objective of the Plan

Statement of Intent: Dieter's manufactures stainless steel accessories for the trucking industry Chromium is a necessary element in the manufacture of stainless steel. Chromium is released from the stainless steel during the laser cutting process and is collected through a closed filtration system along with other cutting dust. The dust containing chromium is collected into a 205 litre drums, then sealed and placed in controlled storage. By using different processes and any new technology we intend to increase the total amount of product produced while maintaining the current levels of chromium released at the facility.

Objective: Dieter's prides itself on technological innovation in order to produce high quality products in an environmentally responsible manner. Dieter's will strive to reduce the amount of Cr created at the facility by using alternate manufacturing methods whenever technically and economically feasible.

2. Facility Information

Facility Name:	Dieter's Metal Fabricating Ltd.
NPRI Identification Number:	11722
Two Digit NAICS Code:	None available for Chromium
Six Digit NAICS Code :	339990
Number of Full-time Employees:	75
Address:	275 Industrial Road Cambridge, ON N3H 4R7
Phone:	519-884-8555 (Toll Free 1-877-884-8555)
Fax:	519-650-3334

2.1. Owner of the Facility Information

Name:	Dieter Hohendorf
Address:	1 squire Court Waterloo ON N2J 4G8
Cell Phone Number:	519-590-3535
E-mail:	dieter@dietersaccessories.com

The company is 100% owned by Dieter Hohendorf.

2.2. Operator of the Facility Information

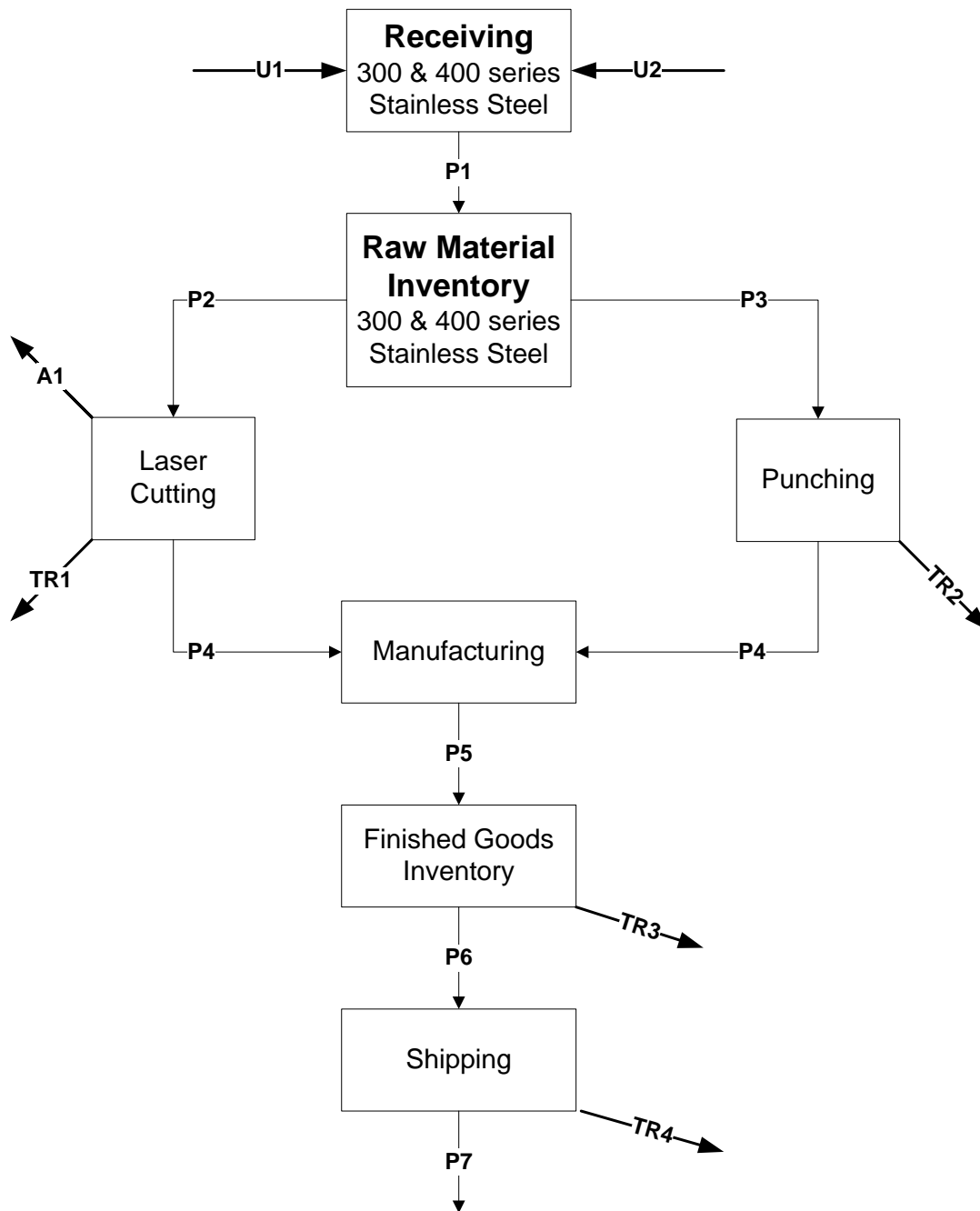
Name: Peter Hohendorf
Address: 799 Bona Vista Dr. Waterloo ON N2k 4B3
Cell Phone Number: 519-501-7641
E-mail: phohendorf@ditersaccessories.com

2.3. Highest Ranking Employee at the Facility Information

Name: Peter Hohendorf
Address: 799 Bona Vista Dr. Waterloo ON N2k 4B3
Cell Phone Number: 519-501-7641
E-mail: phohendorf@ditersaccessories.com

2.4 Address: 275 Industrial Road
Cambridge ON N3H 4R7
Phone: 519-884-8555 (Toll free 1-877-884-8555)
Fax: 519-650-3344

Process Description for Chromium, Manganese and Nickel



Legend

- U** Enters the process (Receiving)
- P** Processed
- TR** Transferred for recycling
- A** Emission to air (Laser dust)

The following substances are contained in the product during the entire process from purchasing to shipping. All materials are either in inventory, shipped in the final product or recycled. In this condition the substances do not pose any risk to employees or the environment. All quantities referenced in above flowcharts will be recorded in the accounting section of the TRA Plan.

Calculation of percentage of ingredient in stainless steel		
Ingredient	Percentage	Calculation Rationale
Chromium	25%	MSDS sheets amounts range from 10% to 30%
Manganese	12%	MSDS sheets amounts range from 10% to 15%
Nickel	30%	MSDS sheets amounts range from 20% to 45%

Figure 1. Illustration Showing Stages and Processes at Dieter's Metal Fabricating Ltd. how Chromium is produced and collected.

Figure 2 Pictures of laser dust produced and created at laser cutting machines.





Figure 3. Pictures of Dust collector system that capture laser dust.



Figure 4. Picture of 205L drum containing laser dust.



Figure 5. Pictures of 205L drums in secured storage.



4. Tracking and quantification for Chromium (From laser dust) at the Process Level

- 4.1** Amount of chromium in types of stainless steel: All stainless steel contains a minimum 10.5% - 11% of Chromium
300 series minimum of 16% of Chromium
304 series minimum of 18% of Chromium
400 series minimum 10.5% -11% of Chromium

4.2 Chromium is an essential element in the manufacturing of stainless steel. In the stainless steel natural state it poses no health or environmental risk to humans, plants, animals or the environment. As per MSDS sheet there are no hazards identified in its natural state. All stainless steel at Dieter's from receiving to shipping or recycling is always in the natural state. Chromium is only released during the laser cutting process.

4.3 Chromium (CR) created during the laser cutting process and is collected and controlled as follows:

Chromium is contained in laser dust that is collected in a closed loop filtration system.

It is not released to air.

It is not released to water.

It is not released to ground.

4.4 Efficiency of dust collectors: 99.6% to 99.9% efficient for all particles of 3 microns or greater.

Dust Collectors: Donaldson Torit Model TG4 Model TG4 Serial# 3604942
Efficiency 99.6% @ >3 microns (LMS Technologies Report #1962)

NR Murphy Dust Collector Model CP-2-2-2
Efficiency 99% @ >1 micron (Murphy letter 8/16/2007)

Trumpf Trumatic Filter system Type MF-2 Equip.# 97-04002-5822
Efficiency

4.5 Amount of chromium in laser dust: 13 to 21 mg/L. (Average 17mg/L)
(Cambridge Material Testing Limited Lab report #595313-12)

Average amount of chromium in 205L drums containing Laser dust collected = $205 \times 17\text{mg/L} = 3,485 \text{ mg per drum}$.

All laser dust collected (Provincial code 146T) is picked up by Hotz Environmental (Registration No. A8251).

Dieter's Registration No. ON8817341