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Dexter Fastener Technologies, Inc.

MAY 24 2023

2110 Bishop Circle Dexter, Michigan 48130

AIR QUALITY DIVISION

734-426-5200 FAX 734-426-5870

Memo

To: Department of Environment, Great Lakes, and Energy, Jackson District Office

From: Joe Kopacz, Engineering Manager

Don Semones, EHS Manager

Date: 5/16/23

Copy: Jenine Camilleri, Enforcement Unit Supervisor at EGLE, AQD Lansing, MI

Subject: Written Response to No Permit to Install Violation, N7596 Washtenaw County

On April 19, 2022, the Department of Environment, Great Lakes and Energy (EGLE), Air Quality Division (AQD), conducted an unannounced compliance inspection of Dexter Fastener Technologies, Inc. located at 2110 Bishop Circle East, Dexter, Michigan.

This is a written response to the violation letter dated 4/26/23. The Rule 201, No permit to install violation that was cited in the letter is not correct, in our opinion.

Dextech as been operating under the Rule 290 permit exemption and continues to keep records of emissions for each of our heat treatment processing lines and gas generators.

We routinely review our process and do not have the potential to emit Hexavalent Chromium, which would make the company ineligible for the Rule 290 permit exemption. The steel composition, alloying elements,

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Dextech Heat Treatment Process:

Dextech cold forms (room temperature forging) bolts out of low (0.05-0.15% carbon) and medium carbon (0.3-0.5% carbon) steel. We do not process any stainless grades of steel. The violation incorrectly states that we process stainless steel.

The carbon steels we use do have alloying elements such as boron and chromium.

These alloying elements are added to the steel during the original smelting process at temperatures around 1350 - 1540 C to improve its mechanical properties. This work is completed at the steel mill (Kobe Steel Ltd, Japan) before being shipped to the United States.

The heat treating process for Dextech fasteners consists of a washing off of process oils, heating of the steel parts to attain a uniform temperature of 880C, rapid cooling in a quench oil medium, rinsing of the quenching oil and tempering the part at temperatures between 430-530 C. The goal of the process is solid state internal transformation of the steel structure to a tempered martensite, which balances hardness and toughness.

Based on the temperatures of the steel heat treatment, alloying elements of the steel do not leave the steel surface but remain bonded into the solid lattice structures. The furnace atmosphere is oxygen deprived eliminating the potential of oxidation of the steel and any other part of the furnace chamber. As a result, these alloying elements will not be present in the furnace exhaust.

The furnace exhaust will consist of natural gas combustion products and has the potential to contain small quantities of combustion products from oil not thoroughly washed from the part prior to heat treatment.

The violation notice states that heat treatment can produce hexavalent chromium emissions.

Chemical analysis of an SCM435 material bolt before and after heat treatment was conducted by Element Materials Technology in Wixom, MI on 5/10/23. Report number DEX005-23-05-13537-1 shows that the chromium content does not change in our heat treatment process. Since the chromium content does not change with the process, our heat treat furnaces will not emit hexavalent chromium. A copy of the Element



STATE OF MICHIGAN

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

JACKSON DISTRICT OFFICE



April 26, 2023

VIA E-MAIL AND U.S. MAIL

Don Semones
Dexter Fastener Technologies, Inc.
2110 Bishop Circle East
Dexter, Michigan 48130

Dear Don Semones:

SRN: N7596, Washtenaw County

On April 19, 2022, the Department of Environment, Great Lakes and Energy (EGLE), Air Quality Division (AQD), conducted an unannounced compliance inspection of Dexter Fastener Technologies, Inc. located at 2110 Bishop Circle East, Dexter, Michigan. The purpose of this inspection was to determine Dexter Fastener Technologies' compliance with the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) and the associated Air Pollution Control Rules.

VIOLATION NOTICE

During the inspection and subsequent records review, AQD staff determined the following:

Process Description	Rule/Permit Condition Violated	Comments
Eight (8) heat treatment processing lines used to produce stainless steel bolts. Each line/emission unit consists of an atmospheric generator, quenching furnace, oil	Rule 201	No Permit to Install. Company has been operating the heat treatment lines under the Rule 290 permit exemption. However, heat treatment can produce hexavalent chromium emissions, which would make this process incligible for R

Don Semones
Dexter Fastener Technologies, Inc.
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April 26, 2023

Please initiate actions necessary to correct the cited violation and submit a written response to this Violation Notice by **May 17, 2023** (which coincides with 21 calendar days from the date of this letter). The written response should include: the date the violation occurred; an explanation of the causes and duration of the violation; whether the violation is ongoing; a summary of the actions that have been taken and are proposed to be taken to correct the violation and the dates by which these actions will take place; and what steps are being taken to prevent a reoccurrence.

Please submit the written response to EGLE, AQD, Jackson District, at 301 East Louis Glick Highway, Jackson, Michigan 49201 and submit a copy to Jenine Camilleri, Enforcement Unit Supervisor at EGLE, AQD, P.O. Box 30260, Lansing, Michigan 48909-7760.

If Dexter Fastener Technologies believes the above observations or statements are inaccurate or do not constitute violations of the applicable legal requirements cited, please provide appropriate factual information to explain your position.

Thank you for your attention to resolving the violations cited above and for the cooperation that was extended to me during my recent inspection of Dexter Fastener Technologies. If you have any questions regarding the violations or the actions necessary to bring this facility into compliance, please contact me at the number listed below.

Sincerely,
While Kevalchick

Mike Kovalchick Senior Environmental Engineer Air Quality Division 517-416-5025

cc: Joseph Kopacz, Dexter Fastener Technologies Annette Switzer, EGLE Christopher Ethridge, EGLE Brad Myott, EGLE Jenine Camilleri, EGLE



Contact: Joe Kopacz

Dexter Fastener Technologies, Inc. 2110 Bishop Circle

DEXTER, MI 48130

Element Materials Technology 51229 Century Court

Wixom, MI 48393-2074 P: 248 960 4900

T: 888 786 7555 F: 248 960 4970

info,wixom@element.com

element.com

TEST CERTIFICATE — EAR-CONTROLLED DATA

P.O. No.:

008285

Report No.:

DEX005-23-05-13537-1

Date Received: Report Date:

5/10/2023 5/12/2023

Report Delivered Via:

jkopacz@dextech.net ...

Attachments:

None

Work Requested: Chemical analysis of two (2) bolts.

Respectfully submitted



Element Materials Technology 51229 Century Court Wixom, MI 48393-2074 P: 248 960 4900 T: 888 786 7555 F: 248 960 4970

info.wixom@element.com element.com

Report No.: DEX005-23-05-13537-1 TEST CERTIFICATE — EAR-CONTROLLED DATA

Chemical Analysis

Test Method	ASTM E415-21
Specification	JIS G 4056:2016
Conformance	The specimens conform to the cited requirements.

	DEX-3863	DEX-3864	Requirements
Element	(wt-%)	(wt-%)	Grade SCM435
С	0.37	0.38	0.33-0.38
S	<0.005	<0.005	0.030 max
Р	0.011	0.011	0.030 max
Si	0.19	0.19	0.15-0.35
Mn	0.79	0.79	0.60-0.90
Cr	0.99	0.99	0.90-1.20
Ni	<0.02	<0.02	0.25 max
Мо	0.17	0.17	0.15-0.30
V	<0.008	<0.008	Þ
Al	0.029	0.029	-
Cu	<0.02	<0.02	0.30 max
Ti	<0.008	<0.008	-
Nb	<0.008	<0.008	-
Fe	Base	Base	-

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Respectfully submitted

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