UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
	)	
	)	
Elementis Chromium, LP	)	Docket No. TSCA-HQ-2010-5022
	)	
Hightstown, New Jersey	)	
	)	COMPLAINT AND NOTICE OF
	)	OPPORTUNITY FOR HEARING
Respondent	)	
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I. INTRODUCTION

This Complaint and Notice of Opportunity for Hearing ("Complaint") is filed pursuant to Toxic Substances Control Act (TSCA) §16(a), 15 U.S.C. § 2615(a), and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/ Termination or Suspension of Permits ("Consolidated Rules of Practice"), 40 C.F.R. Part 22.[1] The Complainant is Rosemarie A. Kelley, Director, Waste and Chemical Enforcement Division, Office of Civil Enforcement, United States Environmental Protection Agency ("EPA," "Agency," or "Complainant"), who has been duly delegated the authority to initiate this action. The Respondent is Elementis Chromium, LP, 329 Wyckoffs Mill Road, Hightstown, New Jersey 08520 ("Elementis" or "Respondent").

This Complaint serves as notice that Complainant has reason to believe that Respondent failed to immediately inform the Administrator of EPA ("Administrator") of substantial risk

[1] A copy of the Consolidated Rules of Practice is enclosed with this Complaint (Enclosure 1).

information it obtained in an epidemiological study of the health effects of occupational exposure to hexavalent chromium on workers in modern chromium production facilities, as required by TSCA § 8(e), 15 U.S.C. § 2607(e), thereby committing an unlawful act under TSCA § 15, 15 U.S.C. § 2614. The metallic element chromium is one of the most commonly used industrial metals in the world. Hexavalent chromium is a toxic form of chromium. Workplace exposure to hexavalent chromium has been shown to cause serious health effects, including increased risk of lung cancer. The study that Respondent failed or refused to submit to the Administrator documented a relationship between hexavalent chromium exposure and elevated respiratory cancer risk among certain workers in modern chromium production plants utilizing low-lime or no-lime kiln manufacturing processes.

In support of this Complaint, Complainant makes the following allegations:

II. COMPLAINT

1. TSCA § 8(e), 15 U.S.C. § 2607(e) states, "Any person who manufactures, processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment shall immediately inform the Administrator of such information unless such person has actual knowledge that the Administrator has been adequately informed of such information."

2. Respondent is a "person" subject to the requirements of TSCA § 8(e), 15 U.S.C. § 2607(e).

3. TSCA § 15(3)(B), 15 U.S.C. § 2614(3)(B), provides that it is unlawful for any person "to fail or refuse to submit reports, notices, or other information" required by TSCA.

4. Respondent manufactures, processes, or distributes in commerce a chemical substance or mixture as those terms are defined in TSCA § 3, 15 U.S.C. § 2602, and TSCA § 8(f), 15 U.S.C. § 2607(f).

5. Elementis is the world's largest manufacturer of chromium chemicals used in a wide variety of industries and industrial activities.

6. Respondent has two main manufacturing facilities that produce chromium chemicals in the United States.

7. Respondent has a domestic chromium manufacturing facility known as Castle Hayne ("Castle Hayne Facility"), located at 5408 Holly Shelter Road in North Carolina. Respondent was the owner and operator of the Castle Hayne Facility at all times relevant to this Complaint.

8. Respondent has a domestic chromium manufacturing facility known as Corpus Christi ("Corpus Christi Facility"), located at 3800 Buddy Lawrence Drive in Corpus Christi, Texas. Respondent was the owner and operator of the Corpus Christi Facility at all times relevant to this Complaint.

9. Respondent manufactures chromium chemicals, which are chemical substances or mixtures under TSCA.

10. Respondent processes chromium chemicals, which are chemical substances or mixtures under TSCA.

11. Respondent distributes in commerce chromium chemicals, which are chemical substances or mixtures under TSCA.

12. Respondent manufactures, processes, or distributes in commerce the following chromium chemicals: chromic acid; chromic oxide; and sodium dichromate.

13. Respondent manufactures chromium chemicals using the metallic element chromium.

14. In addition to the metal, the element chromium occurs primarily in two valence states: trivalent chromium and hexavalent chromium.

15. Chromium forms a large number of compounds in the hexavalent state known as hexavalent chromium compounds.

16. Trivalent chromium occurs naturally; hexavalent chromium rarely occurs naturally.

17. Hexavalent chromium compounds are produced generally by industrial processes.

18. Chromic acid, chromic oxide, and sodium dichromate are hexavalent chromium compounds.

19. Adverse human health effects have been associated with occupational exposure to hexavalent chromium. Occupational exposure can result from worker inhalation of airborne hexavalent chromium as a dust, fume, or mist.

20. The human health effects of chromium are related primarily to the valence state of the metal at the time of exposure.

21. Hexavalent chromium is the valence state considered to be the greatest risk to human health.

22. The primary human health effects from occupational exposure to hexavalent chromium are lung cancer and damage to the nasal epithelia and skin.

23. EPA has classified hexavalent chromium as a known human carcinogen by the inhalation route of exposure.

24. Respondent obtained information which reasonably supports the conclusion that hexavalent chromium exposure presents a substantial risk of injury to the health of

certain workers in modern chromium production facilities utilizing low-lime or no-lime kiln manufacturing processes.

25. Respondent was a member of a trade association of manufacturers and users of chromium and chrome products known as the Chrome Coalition.

26. Dr. Joel Barnhart, the then-Vice President of Elementis Chromium, LP, served as chairperson of the Chrome Coalition.

27. In or about 1996, the Chrome Coalition embarked on an effort to ascertain whether a relationship between hexavalent chromium exposure and respiratory cancer risk was evident among chromium production workers after a change from high-lime to low-lime or no-lime kiln manufacturing processes.

28. In the 1950s and 1960s, the chromium industry began to modify its manufacturing processes for chromium chemicals from high-lime to low-lime or no-lime.

29. Originally, the chromium industry utilized high-lime kiln manufacturing processes to manufacture chromium chemicals. As part of this process, lime or similar alkali-containing materials were added to optimize the extraction of hexavalent chromium from chromate ore in an amount equal to 56% of the weight of the chromate ore.

30. In modern low-lime manufacturing processes, the amount of lime added is less than 10% of the weight of the chromate ore.

31. The Chrome Coalition hired Industrial Health Foundation, Inc. ("IHF") to serve as the third-party administrator of the trade association.

32. The IHF, established in 1935, is an association of industrial companies.

33. Respondent was a member of the IHF Chromium Chemicals Health and Environmental Committee.

34. The IHF Chromium Chemicals Health and Environmental Committee commissioned the development of an epidemiological study of hexavalent chromium exposure of employees of modern chromium production facilities utilizing low-lime or no-lime kiln manufacturing processes.

35. On or about March 17, 1997, Applied Epidemiology, Inc. submitted a proposal to the IHF Chromium Chemicals Health and Environmental Committee to conduct an epidemiological study of six modern chromium production facilities in England, Germany, and the United States ("Epidemiological Study of Six Modern Chromate Production Facilities: A Unified Strategy for Updating Mortality Experience Through 1998 – *A Draft Proposal*").

36. The purpose of the proposed Chrome Coalition-sponsored epidemiological study was twofold: 1) to examine the relationship between hexavalent chromium exposure and respiratory cancer risk among workers in modern chromium production facilities utilizing low-lime or no-lime kiln manufacturing processes; and 2) to inform an Occupational Safety and Health Administration rulemaking to consider a revised Permissible Exposure Limit for worker exposure to hexavalent chromium.

37. On or about February 24, 1998, Applied Epidemiology, Inc. submitted a revised final proposal to the IHF Chromium Chemicals Health and Environmental Committee to conduct an epidemiological study of five modern chromium production facilities in England, Germany, and the United States ("Collaborative Cohort Mortality Study of Five Chromate Production Facilities, 1958 – 1998 – *Revised Proposal*" ("Revised Final Five Plant Proposal")).

38. On or about March 1, 1998, the IHF entered into an agreement for consulting services ("Consulting Services Agreement") with Applied Epidemiology, Inc. to conduct the proposed epidemiological study of five modern chromium production facilities. The Consulting Services Agreement constituted IHF's acceptance of the Revised Final Five Plant Proposal.

39. On or about April 23, 1999, Applied Epidemiology, Inc. submitted a draft protocol to the IHF Chromium Chemicals Health and Environmental Committee to conduct an epidemiological study of five modern chromium production facilities in England, Germany, and the United States ("DRAFT PROTOCOL – Collaborative Cohort Mortality Study of Five Chromate Production Facilities, 1958 – 1998").

40. On or about April 7, 2002, Applied Epidemiology, Inc. released a draft report containing the results of the multi-plant epidemiological study, which involved cohorts from four modern chromium production facilities in Germany and the United States ("Collaborative Cohort Mortality Study of Four Chromate Production Facilities, 1958 – 1998").

41. On or about October 8, 2002, Respondent obtained the final report containing the results of the multi-plant epidemiological study, which involved cohorts from four modern chromium production facilities in Germany and the United States ("Collaborative Cohort Mortality Study of Four Chromate Production Facilities, 1958 – 1998 —FINAL REPORT" (September 27, 2002) ("Final Four Plant Report")). These facilities were: Leverkusen (Germany); Uerdingen (Germany); Castle Hayne (United States); and Corpus Christi (United States).

42. Dr. Joel Barnhart, the then-Vice President of Elementis Chromium, LP, received the Final Four Plant Report on October 8, 2002.

43. The Final Four Plant Report contains information which reasonably supports the conclusion that hexavalent chromium exposure presents a substantial risk of injury to the health of certain workers in modern chromium production facilities utilizing low-lime or no-lime kiln manufacturing processes.

44. The Final Four Plant Report divided workers in the combined four-plant cohort into three groups of workers by exposure level: the low exposure group (<40 micrograms per liter per year (μg/L-year)); the intermediate exposure group (40 μg/L-year to <200 μg/L-year); and the high exposure group (≥ 200 μg/L-year).

45. The Final Four Plant Report found elevated lung cancer risk among workers at the high exposure level (≥ 200 μg/L-year).

46. The Final Four Plant Report also found elevated lung cancer risk among workers at the intermediate exposure level (40 μg/L-year to <200 μg/L-year).

47. The Final Four Plant Report fills a critical gap in the scientific literature regarding the relationship between hexavalent chromium exposure and respiratory cancer risk in modern chromium production facilities utilizing low-lime or no-lime kiln manufacturing processes.

48. The Final Four Plant Report, in Section 2.3 entitled "*Rationale for a Study Combining these Cohorts,*" states: "Although the published literature demonstrates a consistent association between hexavalent chromate exposure and respiratory cancer, the change to no-lime or low-lime processes in the chromium chemicals industry combined with improved production methods and industrial hygiene practices renders this extensive literature unrepresentative of current exposure conditions. Studying the modern chromium chemical industry offers opportunities for filling this gap in the scientific

literature, but most facilities have been inadequate for stand-alone analysis of lung cancer risk associated with chromium exposure, primarily due to relatively small exposed employee populations. Further, prior to this point in time, inadequate time has passed since conversion to (or construction of) low-lime or no-lime processes to be able to detect any remaining lung cancer risk associated with lower exposure. For these substantial reasons, a combined study of employees from several similar production facilities was undertaken, with better statistical power than any study of a single plant might provide." (Final Four Plant Report, pages 26-27 in the original numbering.)

49. Respondent did not immediately inform the Administrator of the Final Four Plant Report as information which reasonably supports the conclusion that hexavalent chromium exposure presents a substantial risk of injury to the health of certain workers in modern chromium production facilities utilizing low-lime or no-lime kiln manufacturing processes, as required by TSCA § 8(e).

50. Respondent's failure to immediately inform the Administrator of the Final Four Plant Report constitutes a violation of TSCA § 8(e), 15 U.S.C. § 2607(e).

51. Respondent's failure or refusal to submit the Final Four Plant Report, as required under TSCA § 8(e), is an unlawful act under TSCA § 15(3)(B), 15 U.S.C. § 2614(3)(B).

52. The statutory obligation to immediately inform the Administrator under TSCA § 8(e), 15 U.S.C. § 2607(e), continues until such time as Respondent submits the information to the Administrator or Respondent has actual knowledge that the Administrator has been adequately informed of such information.

III. CIVIL PENALTY ASSESSMENT

TSCA § 16, 15 U.S.C. § 2615, authorizes the assessment of a civil penalty for violations of TSCA §15, 15 U.S.C. §2614, in the maximum amount of $25,000 for each day of violation. The Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996, requires EPA to adjust penalties to account for inflation. EPA's Civil Monetary Penalty Inflation Adjustment Rule establishes $27,500 for each day of violation as the maximum civil penalty that may be assessed under TSCA § 16(a), per violation, occurring between January 30, 1997 and March 15, 2004; $32,500 for violations occurring between March 16, 2004 and January 12, 2009; and $37,500 for violations occurring after January 12, 2009. See 40 C.F.R. Part 19.

For purposes of determining the amount of a civil penalty to be assessed, TSCA § 16(a)(2)(B), 15 U.S.C. § 2615, requires EPA to take into account the nature, circumstances, extent, and gravity of the violations alleged, as well as Respondent's ability to pay, effect on ability to continue to do business, any history of prior such violations, the degree of culpability, and such other matters as justice may require ("statutory factors"). In developing a proposed penalty, Complainant will take into account the particular facts and circumstances of this case with specific reference to the statutory factors set forth in TSCA § 16(a)(2)(B), 15 U.S.C. § 2615, and EPA's Enforcement Response Policy for Reporting and Recordkeeping Rules and Requirements for TSCA Sections 8, 12 and 13 (March 31, 1999) ("TSCA ERP"), effective June 1, 1999. See Enclosure 2. The TSCA ERP provides a rational, consistent, and equitable calculation methodology for applying the statutory factors enumerated above to particular cases.

Pursuant to 40 C.F.R. § 22.14(a)(4)(ii), Complainant is not proposing a specific penalty at this time, but will do so within fifteen (15) days after Respondent files its prehearing information

exchange. 40 C.F.R. § 22.19(a)(4). In calculating a specific penalty pursuant to 40 C.F.R. § 22.19(a)(4), Complainant will consider, among other factors, facts and circumstances unknown to Complainant at the time of issuance of the Complaint that become known after the Complaint is issued. Given the facts alleged in this Complaint and the statutory factors enumerated above, as known to the Complainant at this time, Complainant could propose the assessment of a civil penalty of up to $27,000 per day for the violation period running from October 8, 2002 through March 15, 2004, and $32,500 per day for the violation period running from March 16, 2004 through November 17, 2008. This Complaint does not constitute a "demand" as that term is defined in the Equal Access to Justice Act, 28 U.S.C. § 2412.

Respondent's failure or refusal to submit the Final Four Plant Report is a violation of TSCA § 8(e), 15 U.S.C. §2607(e), and an unlawful act under TSCA § 15(3)(B), 15 U.S.C. § 2614(3)(B). This violation began on October 8, 2002, and continued until such time as Respondent submitted the information to the Administrator or Respondent had actual knowledge that the Administrator had been adequately informed of such information. Respondent submitted the Final Four Plant Report to Complainant on November 17, 2008, in response to a TSCA Section 11 Subpoena issued by Complainant to Respondent on August 22, 2008.

The Agency uses TSCA § 8(e) information to assess risk in a variety of circumstances; therefore submission of timely information is essential to the Agency's risk assessment, regulatory priority setting, and regulation development processes. For purposes of calculating an appropriate penalty, based on the facts alleged in this Complaint, EPA would consider this TSCA § 8(e), 15 U.S.C. §2607(e), violation to be a serious violation of the highest level under the TSCA Penalty Matrix in the TSCA ERP. The information obtained by Respondent in the Final

circumstances or arguments which are alleged to constitute the grounds of any defense; (2) the facts which Respondent disputes; (3) the basis for opposing any proposed relief; and (4) a statement as to whether a hearing is requested. The denial of any material fact or the raising of any affirmative defense shall be construed as a request for a hearing. All material facts not denied in the Answer will be considered as admitted.

If Respondent fails to file a written Answer within thirty (30) days of service of this Complaint, such failure shall constitute an admission of all facts alleged in the Complaint and a waiver of Respondent's right to a hearing on such factual allegations. Failure to file a written Answer may result in Complainant's filing of a Motion for Default Order imposing the penalties herein without further proceedings.

A copy of Respondent's Answer and all other documents that Respondent files in this action should be sent to the attorney of record assigned to represent EPA in this matter, as follows:

Mark A.R. Chalfant, Attorney
Waste and Chemical Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
1595 Wynkoop Street (Mailstop: 8ENF-L)
Denver, CO 80202-1129

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Email: chalfant.mark@epa.gov

V. INFORMAL SETTLEMENT CONFERENCE

Whether or not Respondent requests a hearing, Respondent may confer informally with EPA to discuss the facts of this case, or amount of the penalty, and the possibility of settlement. An informal settlement conference does not, however, affect Respondent's obligation to file a timely written Answer to the Complaint.

EPA has the authority, where appropriate, to modify the amount of the penalty, once determined, to reflect any settlement reached with Respondent in an informal conference. The terms of such an agreement would be embodied in a Consent Agreement. A Consent Agreement signed by EPA and Respondent would be binding as to all terms and conditions specified therein upon issuance of a Final Order by the Environmental Appeals Board.

Please be advised that the Consolidated Rules of Practice prohibit any ex parte (unilateral) discussion of the merits of this action with the Administrator, the members of the Environmental Appeals Board, the assigned Administrative Law Judge, or any person likely to advise these officials in the decision of the case, after the issuance of this Complaint. See 40 C.F.R. § 22.8.

By:

Rosemarie A. Kelley Date: 9/2/10

Rosemarie A. Kelley, Director
Waste and Chemical Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

ENCLOSURES

Enclosure 1 Consolidated Rules of Practice (40 C.F.R. Part 22)

Enclosure 2 TSCA Enforcement Response Policies

CERTIFICATION

I certify that the original of the Complaint and Notice of Opportunity for Hearing, Docket No. TSCA-HQ-2010-5022 has been filed with the Headquarters Hearing Clerk and that copies were sent by UPS and electronic mail to:

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Tony R. Ellis Date: 9-2-10

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