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**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND**

Received by  
EPA Region 1  
Hearing Clerk

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*In the Matter of:* )  
 )  
 Excelitas Technologies Corp. )  
 35 Congress St. )  
 Salem, MA 01970 )  
 )  
 Respondent )  
 )  
 Proceeding under Section 113 of the )  
 Clean Air Act )  
 \_\_\_\_\_ )

Docket No.  
CAA-01-2022-0037

**CONSENT AGREEMENT AND FINAL ORDER**

1. The United States Environmental Protection Agency, Region 1 (“EPA” or “Complainant”) and Excelitas Technologies Corp. (“Excelitas” or “Respondent”) consent to the entry of this Consent Agreement and Final Order (“CAFO”) pursuant to 40 C.F.R. § 22.13(b) of the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Suspension of Permits, 40 C.F.R. Part 22 (“Consolidated Rules of Practice”). This CAFO resolves Respondent’s liability for alleged violations of Sections 112(r)(1) of the Clean Air Act (“CAA”), 42 U.S.C. § 7412(r)(1).

2. EPA and Respondent hereby agree to settle this matter through this CAFO without the filing of an administrative complaint, as authorized under 40 C.F.R. §§ 22.13(b) and 22.18(b).

3. EPA and Respondent agree that settlement of this matter is in the public interest, and that entry of this CAFO without further litigation is the most appropriate means of resolving this matter.

4. Therefore, before taking any testimony, upon the pleadings, without adjudication or admission by Respondent of any issue of fact or law, it is hereby ordered as follows:

## I. PRELIMINARY STATEMENT

5. This CAFO is entered into under Section 113(d) of the CAA, 42 U.S.C. § 7413(d), and the Consolidated Rules of Practice, 40 C.F.R. Part 22.

6. EPA and the U.S. Department of Justice jointly determined that this matter is appropriate for administrative penalty assessment, pursuant to 42 U.S.C. § 7413(d)(1) and 40 C.F.R. § 19.4.

7. The Regional Judicial Officer is authorized to ratify this CAFO, which memorializes a settlement between Complainant and Respondent. 40 C.F.R. §§ 22.4(b) and 22.18(b).

8. The issuance of this CAFO simultaneously initiates and concludes this proceeding. 40 C.F.R. § 22.13(b).

## II. STATUTORY AND REGULATORY AUTHORITY

### Clean Air Act

9. The purpose of Section 112(r) of the CAA and its implementing regulations is “to prevent the accidental release and to minimize the consequences of any such release” of an “extremely hazardous substance.” 42 U.S.C. § 7412(r)(1).

10. Section 112(r)(1) of the CAA is referred to as the “General Duty Clause” or the “GDC.” Pursuant to the GDC, owners and operators of stationary sources producing, processing, handling, or storing substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), or any other extremely hazardous substance, have a general duty, in the same manner and to the same extent as 29 U.S.C. § 654, to (a) identify hazards that may result from accidental releases of such substances using appropriate hazard assessment techniques; (b) design and maintain a safe facility taking such steps as are necessary to prevent releases; and (c) minimize the consequences of accidental releases that do occur.

11. The term “have a general duty in the same manner and to the same extent as section 654 of title 29” of the United States Code means owners and operators must comply with the General Duty Clause in the same manner and to the same extent as employers must comply with the Occupational Safety and Health Act administered by the Occupational Safety and Health Administration (“OSHA”).

12. The term “extremely hazardous substance” means an extremely hazardous substance within the meaning of Section 112(r)(1) of the CAA, including any chemical which may, as a result of short-term exposures associated with releases to the air, cause death, injury, or property damage due to its toxicity, reactivity, flammability or corrosivity.<sup>1</sup> The term includes, but is not limited to, regulated substances listed in CAA Section 112(r)(3) and in 40 C.F.R. § 68.130. In addition, the release of any substance that causes death or serious injury because of its acute toxic effect or as a result of an explosion or fire or that causes substantial property damage by blast, fire, corrosion or other reaction would create a presumption that such substance is extremely hazardous.<sup>2</sup> Under Section 112(r)(3) of the CAA, the term “extremely hazardous substances” also includes, without limitation and in addition to substances listed in 40 C.F.R. § 68.130, those substances listed in 40 C.F.R. Part 355, Appendices A and B, published under Section 302 of EPCRA, 42 U.S.C. § 11002.

13. The term “accidental release” is defined by Section 112(r)(2)(A) of the CAA, 42 U.S.C. § 7412(r)(2)(A), as an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

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<sup>1</sup> See Senate Committee on Environment and Public Works, Clean Air Act Amendments of 1989, Sen. Report No. 228, 101<sup>st</sup> Congress, 1<sup>st</sup> Session at 211 (1989).

<sup>2</sup> *Id.* at 211.

14. The term “stationary source” is defined by Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C), in pertinent part, as any buildings, structures, equipment, installations, or substance-emitting stationary activities, located on one or more contiguous properties under the control of the same person, from which an accidental release may occur.

15. The General Duty Clause is a performance standard with requirements that often can be achieved in a variety of ways, but facility owners and operators would need to implement all feasible means to reduce the threat of death, serious injury or substantial property damage to satisfy the requirements of the General Duty Clause.<sup>3</sup> EPA routinely consults chemical Safety Data Sheets (“SDSs”), codes, standards, and guidance issued by chemical manufacturers, trade associations, and fire prevention associations (collectively, “industry standards”) to understand the hazards posed by using various extremely hazardous substances. The industry standards also are evidence of the standard of care that industry itself has found to be appropriate for managing those hazards. These industry standards are consistently relied upon by industry safety and fire prevention experts and are sometimes incorporated into state building, fire, and mechanical codes.

16. Section 112(r)(8), 42 U.S.C. § 7412(r)(8), of the CAA requires EPA to develop and disseminate information on how to conduct hazard assessments. According to EPA’s Guidance for Implementation of the GDC CAA Section 112(r)(1) (“EPA GDC Guidance,” May 2000), available at <https://www.epa.gov/sites/production/files/documents/gendutyclause-rpt.pdf>, the General Duty Clause’s duty to identify hazards that may result from hazardous releases requires determining: (a) the intrinsic hazards of the chemicals used in the processes; (b) the risks of accidental releases from the processes through possible release scenarios; and (c) the potential

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<sup>3</sup> Id.

effect of these releases on the public and the environment. The document that contains this analysis is often referred to as a process hazard review (“PHR”).

17. Sections 113(a)(3) and (d) of the CAA, 42 U.S.C. §§ 7413(a)(3) and (d), provide for the assessment of civil penalties for violations of CAA Section 112(r). Statutory maximum penalties as adjusted for inflation are provided in 40 C.F.R. Part 19.

### **III. GENERAL FACTUAL ALLEGATIONS**

18. Respondent’s facility (“Facility”) is located in a mixed-use area of downtown Salem. The Facility is located on the third and fourth floors of a mixed-use commercial/industrial building that houses medical offices, a deli, and other businesses. The Facility is located within a third of a mile from several tourist attractions in downtown Salem, including museums and restaurants. The east end of the building abuts the South River that flows into the Atlantic Ocean.

19. Respondent designs and manufactures electro-optical components, high-energy switches, time frequency switches, high voltage conversion systems, and X-ray sources for a variety of industries.

20. Respondent employs approximately 175 full time employees at the Facility and runs one to three shifts, depending on the area of operation.

21. Respondent’s corporate headquarters are located at 200 West Street, Waltham, Massachusetts. There are 28 companies in Respondent’s extended corporate holdings of companies and/or branches.

22. Respondent is incorporated under the laws of Delaware.

23. The Facility maintains bulk storage tanks for anhydrous ammonia, liquid nitrogen, liquid oxygen, and pressurized hydrogen gas located outside along the south side of the building.

Respondent also stores and uses other extremely hazardous substances, such as hydrofluoric acid, sulfuric acid, nitric acid, and cyanides.

24. Anhydrous ammonia if released presents a significant health hazard because it is corrosive to the skin, eyes, and lungs. Exposure to 300 parts per million is immediately dangerous to life and health. Ammonia is also flammable at concentrations of approximately 16% to 25% by volume in air. It can explode if released in an enclosed space with a source of ignition present, or if a vessel containing anhydrous ammonia is exposed to fire.

25. Pressurized hydrogen gas presents a health hazard because it is extremely flammable. Hydrogen flame is nearly invisible. Hydrogen has a low ignition energy; escaping hydrogen gas may ignite spontaneously. A fireball forms if the gas cloud ignites immediately after release. Hydrogen forms explosive mixtures with air and oxidizing agents.

26. Characteristics of some of the acids and cyanides at the Facility include the following:

- a. *Hydrofluoric acid* is a solution of hydrogen fluoride and water that is highly toxic by ingestion and inhalation. Exposure to fumes or liquid may cause severe burns. Hydrofluoric acid penetrates skin to destroy underlying tissue. The chemical fumes in the air and is also water reactive. Fumes can be highly irritating, corrosive, and poisonous.
- b. *Nitric acid* is very toxic by inhalation and corrosive to metals or tissue. It is an oxidizer that accelerates the burning of combustible materials and may cause ignition of combustible materials upon contact. It also reacts with water.
- c. *Sulfuric acid* is corrosive to metals and tissue and reacts violently or explosively with water.
- d. *Potassium cyanide* is poisonous and reacts with acids to produce toxic hydrogen cyanide gas.
- e. *Copper cyanide* is poisonous and reacts with acids to produce toxic hydrogen cyanide gas.

27. On January 24, 2020, EPA inspected the Facility to assess its compliance with federal chemical accident prevention, planning, and response laws, including Section 112(r) of the CAA; Section 103 of the Comprehensive Environmental Response, Compensation, and

Liability Act (“CERCLA”); and Sections 302–312 of the Emergency Planning and Community Right-to-Know Act (“EPCRA”).

28. On January 24, 2020, EPA also requested documents from Respondent regarding the Facility. EPA requested all process hazard analyses and reviews, including original process hazard analyses and updates or revalidations.

29. In response to EPA’s January 24, 2020, document request for all of the Facility’s process hazard analyses/reviews, Respondent provided EPA with one process hazard assessment, “Anhydrous Ammonia Process Hazard Assessment: November 19, 2019,” which was divided into two documents (collectively referred to as “the 2019 Ammonia Assessment”).

30. EPA alleges that Respondent’s 2019 Ammonia Assessment only covers anhydrous ammonia use and storage at the Facility and does not address any other extremely hazardous substances used and stored at the Facility.

31. EPA alleges that Respondent’s 2019 Ammonia Assessment was insufficient and failed to use appropriate hazard assessment techniques for identifying anhydrous ammonia hazards at the Facility. EPA alleges that some of the deficiencies of the 2019 Ammonia Assessment include, but are not limited to:

- a. The 2019 Ammonia Assessment does not adequately reflect the Facility’s unique process, including its configuration and location of tanks, piping, and chemical usage. Specifically, the 2019 Ammonia Assessment did not address several process-specific features and hazard scenarios regarding anhydrous ammonia use and storage at the Facility.
- b. The 2019 Ammonia Assessment identifies the generic consequences of an ammonia leak but does not identify Facility-specific hazards or scenarios of individuals being exposed to ammonia when working in any of the Facility’s operations rooms (furnace room, high voltage power (HVP) production and testing room, etc.) or entering the areas from another location.
- c. Although the 2019 Ammonia Assessment includes a brief list of recommended anhydrous ammonia risk mitigation measures to be taken, the 2019 Ammonia Assessment does not always include specific recommendations/action items with a schedule for completion or assignment of responsibility.

32. On September 30, 2020, EPA issued an Administrative Order on Consent (“AOC”) requiring that, as soon as possible, but no later than one hundred and eighty (180) days after the effective date of the AOC, Respondent, would conduct a PHR for the use and storage of extremely hazardous substances at the Facility, using appropriate, industry-recognized hazard assessment techniques. The AOC further required that Respondent submit to EPA a certification that the PHR had been completed; a brief statement about what actions Respondent is taking at the Facility to improve safety as a result of conducting the PHR (“Safety Plan Statement”); and a list of expenditures associated with implementing the requirements of the AOC.

33. On March 23, 2021, EPA received a timely and detailed response to the AOC. Following review of the submission, EPA concluded that Respondent had fulfilled the requirements of the AOC.

34. The Respondent is a “person” within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e), against whom an administrative penalty order may be issued under Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3).

35. The Facility is a building or structure from which an accidental release may occur and is therefore a “stationary source,” as defined at Section 112(r)(2)(C) of the CAA, 42 U.S.C. § 7412(r)(2)(C).

36. Respondent is the “operator” of the Facility within the meaning of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1), of a stationary source.

37. Anhydrous ammonia, pressurized hydrogen gas, hydrofluoric acid, nitric acid, sulfuric acid, potassium cyanide and copper cyanide are “extremely hazardous substances,” within the meaning of the General Duty Clause of Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1). These chemicals, either alone or improperly co-located with at least one of the



other chemicals listed, are substances that may, as the result of short-term exposures associated with releases to the air, cause death, injury or property damage due to their toxicity, reactivity, flammability, volatility, or corrosivity. Additionally, anhydrous ammonia is an extremely hazardous substance listed in Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), and in 40 C.F.R. § 68.130; hydrogen fluoride is listed as an extremely hazardous substance directly in Section 112(r)(3) of the CAA, 42 U.S.C. §7412(r)(1); and sulfuric acid and nitric acid are listed as extremely hazardous substances in 40 C.F.R. Part 355, Appendix A.

38. The unanticipated emission of any of the chemicals listed in Paragraphs 24, 25, 26 and 37, either alone or in combination, into the ambient air from the facility would constitute an “accidental release,” as that term is defined by Section 112(r)(2)(A) of the CAA, 42 U.S.C. § 7412(r)(2)(A).

#### **IV. ALLEGED VIOLATION**

##### **Failure to Identify Hazards under the General Duty Clause**

39. Complainant realleges and incorporates by reference Paragraphs 1 through 38.

40. Pursuant to the General Duty Clause in Section 112(r)(1) of the CAA, owners and operators of stationary sources producing, processing, handling, or storing extremely hazardous substances have a general duty, in the same manner and to the same extent as Section 654 of Title 29, to identify hazards that may result from accidental releases of such substances, using appropriate hazard assessment techniques.

41. To identify hazards that may result from accidental releases of extremely hazardous substances under the GDC and Section 112(r)(1) of the CAA, owners and operators of stationary sources should determine: (a) the intrinsic hazards of the chemicals used in the processes; (b) the risks of accidental releases from the processes through possible release scenarios; and (c) the

potential effect of these releases on the public and the environment, using appropriate hazard assessment techniques.

42. As part of the Process, EPA alleges that Respondent used, handled, or stored extremely hazardous substances without properly identifying the hazards that may result from accidental releases or otherwise conducting a PHR using appropriate, industry-recognized hazard assessment techniques.

43. By failing to properly identify hazards that may result from accidental releases of an extremely hazardous substance used, handled, or stored as part of the Process, EPA alleges Respondent violated the General Duty Clause at Section 112(r)(1) of the Clean Air Act.

#### **V. TERMS OF SETTLEMENT**

44. The provisions of this CAFO shall apply to and be binding on EPA, and on Respondent and its officers, directors, agents, successors, and assigns.

45. Neither admitting nor denying facts or violations alleged, Respondent stipulates that EPA has jurisdiction over the subject matter alleged in this CAFO and that this CAFO states a claim, upon which relief may be granted if such claim were proven, against Respondent. Respondent hereby waives any defenses it might have as to jurisdiction and venue relating to the violation alleged in this CAFO.

46. Respondent neither admits nor denies the specific factual allegations contained in Section III of this CAFO or the violation alleged in Paragraph 43 of this CAFO. Respondent consents to the assessment of the penalty stated herein.

47. Respondent hereby waives its right to a judicial or administrative hearing on any issue of law or fact set forth in this CAFO and waives its right to appeal the Final Order.

48. Respondent certifies that it is currently operating the Facility in compliance with Section 112(r)(1) of the CAA, 42 U.S.C. § 7412(r)(1).

49. Pursuant to Section 113(e) of the CAA, 42 U.S.C. § 7413(e), and taking into account the relevant statutory penalty criteria, the facts alleged in this CAFO, and such other circumstances as justice may require, EPA has determined that it is fair and proper to assess a civil penalty of \$46,968 for the violation alleged in this matter.

50. Respondent agrees to the issuance of this CAFO and to the payment of the civil penalty cited in Paragraph 49.

51. Within thirty (30) days of the effective date of this CAFO, Respondent shall pay the total penalty amount of \$46,968 using any method or combination of methods, provided on the website <http://www2.epa.gov/financial/additional-instructions-making-payments-epa>.

Respondent shall include the case name (“*In re Excelitas Technologies Corp.*”) and docket number (CAA-01-2022-0037) on the face of each check or wire transfer confirmation. In addition, at the time of payment Respondent shall simultaneously send notice of proof of payment<sup>4</sup> to Tyler Dierks, Inspector, U.S. EPA, Region 1, by e-mail to [Dierks.Tyler@epa.gov](mailto:Dierks.Tyler@epa.gov).

52. In the event that any portion of the civil penalty amount described in Paragraph 50 is not paid by the required due date, the total penalty amount of \$46,968, plus all accrued interest shall become due immediately to the United States upon such failure. Then interest, as calculated in Paragraph 53, shall continue to accrue on any unpaid amounts until the total amount due has been received by the United States. Respondent shall be liable for such amount regardless of whether EPA has notified Respondent of its failure to pay the penalty amount by

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<sup>4</sup> Proof of payment means, as applicable, a copy of the check, confirmation of credit card or debit card payment, confirmation of wire or automated clearinghouse transfer, and any other information required to demonstrate that payment has been made according to EPA requirements, in the amount due, and identified with Docket No. CAA-01-2022-0037.

the due date or made a demand for payment. All payments to the United States under this paragraph shall be made as described in Paragraph 51.

53. In the event that any portion of the civil penalty amount relating to the alleged CAA violations is not paid when due without demand, pursuant to Section 113(d)(5) of the CAA, Respondent will be subject to an action to compel payment, plus interest, enforcement expenses, and a nonpayment penalty. Interest will be assessed on the civil penalty if it is not paid when due. In that event, interest will accrue from the due date at the “underpayment rate” established pursuant to 26 U.S.C § 6621(a)(2). In the event that a penalty is not paid when due, an additional charge will be assessed to cover the United States’ enforcement expenses, including attorney’s fees and collection costs. In addition, a quarterly nonpayment penalty will be assessed for each quarter during which the failure to pay the penalty persists. Such nonpayment penalty shall be 10 percent of the aggregate amount of Respondent’s outstanding civil penalties and nonpayment penalties hereunder accrued as of the beginning of such quarter. In any such collection action, the validity, amount, and appropriateness of the penalty shall not be subject to review.

54. The civil penalty under this CAFO and any interest, nonpayment penalties, and other charges described herein shall represent penalties assessed by EPA and shall not be deductible for purposes of federal taxes. Accordingly, Respondent agrees to treat all payments made pursuant to this CAFO as penalties within the meaning of Section 1.162-21 of the Internal Revenue Code, 26 C.F.R § 1.162-21, and further agrees not to use these payments in any way as, or in furtherance of, a tax deduction under federal, state, or local law.

55. This CAFO constitutes a settlement by EPA of all claims for civil penalties pursuant to Section 113(d) of the CAA for the violations alleged herein. Compliance with this CAFO

shall not be a defense to any other actions subsequently commenced pursuant to federal laws and regulations administered by EPA for matters not addressed in this CAFO, and it is the responsibility of Respondent to comply with all applicable provisions of federal, state, or local law.

56. This CAFO in no way relieves Respondent or its employees of any criminal liability, and EPA reserves all its other criminal and civil enforcement authorities, including the authority to seek injunctive relief and the authority to undertake any action against Respondent in response to conditions which may present an imminent and substantial endangerment to the public health, welfare, or the environment.

57. This CAFO shall not relieve Respondent of its obligation to comply with all applicable provisions of federal, state, or local law; nor shall it be construed to be a ruling on, or determination of any issue related to any federal, state, or local permit.

58. The terms, conditions, and compliance requirements of this CAFO may not be modified or amended except upon the written agreement of both Parties, and approval of the Regional Judicial Officer.

#### **VI. EFFECT OF CONSENT AGREEMENT AND ATTACHED FINAL ORDER**

59. In accordance with 40 C.F.R. § 22.18(c), completion of the terms of this CAFO resolves only Respondent's liability for federal civil penalties for the violations specifically alleged above.

60. By signing this CAFO, Respondent acknowledges that this document will be available to the public and agrees that this CAFO does not contain any confidential business information or personally identifiable information.

61. By signing this CAFO, the undersigned representative of Complainant and the undersigned representatives of Respondent each certify that he or she is fully authorized to execute and enter into the terms and conditions of this CAFO and has the legal capacity to bind the party he or she represents to this CAFO.

62. By signing this CAFO, Respondent certifies that the information it has supplied concerning this matter was at the time of submission true, accurate, and complete for each such submission, response, and statement. Respondent acknowledges that there are significant penalties for submitting false or misleading information, including the possibility of fines and imprisonment for knowing submission of such information, under 18 U.S.C. § 1001.


63. Except as qualified by Paragraph 53 (collection of unpaid penalty), each party shall bear its own costs and fees in this proceeding including attorney's fees. Respondent specifically waives any right to recover such costs from EPA pursuant to the Equal Access to Justice Act, 5 U.S.C. § 504, or other applicable laws.

64. Complainant and Respondent, by entering into this Consent Agreement, each give their respective consent to accept digital signatures hereupon. Respondent further consents to accept electronic service of the fully executed CAFO, by e-mail, at: **paul.igoe@excelitas.com**. Respondent understands that this e-mail address may be made public when the CAFO and Certificate of Service are filed and uploaded to a searchable database.

#### **EFFECTIVE DATE**

65. Respondent and Complainant agree to issuance of the attached Final Order. Upon filing, EPA will electronically transmit a copy of the filed CAFO to the Respondent. This CAFO shall become effective after execution of the Final Order by the Regional Judicial Officer, on the date of filing with the Regional Hearing Clerk.

FOR RESPONDENT Excelitas Technologies Corporation:

  
\_\_\_\_\_  
Signature

8/26/2022  
Date

Printed Name: Kevin Carr

Title: VP & Associate General Counsel

Address: 35 Congress Street, Salem, MA 01970

FOR COMPLAINANT:

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Signature

*Dated by electronic signature*

Karen McGuire, Director  
Enforcement and Compliance Assurance Division  
U.S. Environmental Protection Agency  
Region 1 – New England



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 1 – NEW ENGLAND**

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*In the Matter of:* )

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35 Congress St. )  
Salem, MA 01970 )

Respondent. )

Proceeding under Section 113 of the )  
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Docket Number:  
CAA-01-2022-0037

**FINAL ORDER**

Pursuant to 40 C.F.R. §§ 22.18(b) and (c) of EPA’s Consolidated Rules of Practice, the Consent Agreement is incorporated by reference into this Final Order and is hereby ratified. Respondent Excelitas Technologies Corp. is ordered to pay the civil penalty of \$46,968 in the manner indicated. The terms of the Consent Agreement will become effective on the date it is filed with the Regional Hearing Clerk.

SO ORDERED.

LeAnn Jensen, Regional Judicial Officer  
U.S. EPA, Region 1

*Dated by electronic signature*