



Ex Hacienda El Hospital II and III

Factual Record regarding Submission SEM-06-003 and SEM-06-004

Prepared in accordance with Article 15 of the
North American Agreement on Environmental Cooperation



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**Ex Hacienda El Hospital II and III
Factual Record regarding Submission
SEM-06-003 and 06-004**

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Acronyms, abbreviations, and definitions

Abbreviations and acronyms

CEC	Commission for Environmental Cooperation
CFPP	Federal Code of Criminal Procedure (<i>Código Federal de Procedimientos Penales</i>)
CPF	Federal Criminal Code (<i>Código Federal Penal</i> , formerly the Criminal Code for the Federal District in Matters under Ordinary Jurisdiction and for the Whole Republic in Matters under Federal Jurisdiction)
DGIFC	Pollution Source Inspection Branch of Profepa (<i>Dirección General de Inspección de Fuentes de Contaminación</i> , formerly, DGII)
DGII	Industrial Inspection Branch of Profepa (<i>Dirección General de Inspección Industrial</i> , now DGIFC)
DOF	Official Gazette of the Federation (<i>Diario Oficial de la Federación</i>)

GPR	Ground Penetrating Radar
IFAI	Federal Access to Information and Data Protection (<i>Instituto Instituto Federal de Acceso a la Información y Protección de Datos</i>)
INECC	National Institute of Ecology and Climate Change of Semarnat (<i>Instituto Nacional de Ecología y Cambio Climático</i>)
JPAC	Joint Public Advisory Committee
LFTAIPG	Federal Transparency and Access to Public Governmental Information Act (<i>Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental</i>)
LGEEPA	General Ecological Balance and Environmental Protection Act (<i>Ley General del Equilibrio Ecológico y la Protección al Ambiente</i>)
LGPGR	General Integrated Waste Prevention and Management Act (<i>Ley General para la Prevención y Gestión Integral de los Residuos</i>)
MPF	Federal Public Prosecutor (<i>Ministerio Público Federal</i>)
NAAEC	North American Agreement on Environmental Cooperation
NOM	Mexican Official Standard (<i>Norma Oficial Mexicana</i>)
NOM-052	Mexican Official Standard NOM-052-SEMARNAT-1993, <i>Establishing the characteristics, identification procedure, and lists of hazardous waste</i> (today, NOM 052 SEMARNAT 2005)
NOM-053	Mexican Official Standard NOM-053-SEMARNAT-1993, <i>Establishing the procedure for conducting extraction testing to determine the components that make a waste hazardous due to its toxicity in the environment</i>
PGR	Office of the Attorney General of the Republic (<i>Procuraduría General de la República</i>)
Profepa	Office of the Federal Attorney for Environmental Protection (<i>Procuraduría Federal de Protección al Ambiente</i>)
Rimsa	Residuos Industriales [Industrial Wastes] Multiquim, S.A. de C.V.
RRP	Regulation to the General Ecological Balance and Environmental Protection Act respecting Hazardous Waste (<i>Reglamento de la Ley General del Equilibrio Ecológico y la Protección al Ambiente en Materia de Residuos Peligrosos</i>)
Sedesol	Ministry of Social Development (<i>Secretaría de Desarrollo Social</i>)
Semarnat	Ministry of Environment and Natural Resources (<i>Secretaría de Medio Ambiente y Recursos Naturales</i> , formerly, Ministry of Environment, Natural Resources and Fisheries (Semarnap)). It should be noted that the change in name from Semarnap to Semarnat took place with modifications to the Federal Public Administration Organization Act (<i>Ley Orgánica de la Administración Pública Federal</i>), published in the Federal Registry (<i>Diario Oficial de la Federación</i>) on 30 November 2000.
TFJFA	Federal Tax and Administrative Court (<i>Tribunal Federal de Justicia Fiscal y Administrativa</i>)
UCAJ	Legal Affairs Coordinating Unit of Semarnat (<i>Unidad Coordinadora de Asuntos Jurídicos</i>)
UEIDAPLE	Special Unit for Investigation of Environmental Offenses and Offenses Contemplated in Special Laws (<i>Unidad Especializada en Investigación de Delitos contra el Ambiente y Previstos en Leyes Especiales</i>)

Definitions

Adjacent Lot	The premises formerly owned by Roberto Abe Domínguez (deceased), not including the area leased to BASF Mexicana (see: <i>Facility</i>)
Agreement	North American Agreement on Environmental Cooperation
BASF Mexicana or the “Company”	The company “BASF Mexicana, S.A. de C.V.”
Council Resolution 12-03	Council Resolution 12-03 adopted 15 June 2012, titled “Instruction to the Secretariat of the Commission for Environmental Cooperation regarding the consolidated submissions on enforcement matters SEM-06-003 and SEM-06-004 asserting that Mexico is failing to effectively enforce Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 <i>bis</i> , 169, and 170 of the <i>Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA)</i> ; 68, 69, 75 and 78 of the <i>Ley General para la Prevención y Gestión Integral de los Residuos (LGPGIR)</i> ; 421 of the <i>Código Penal Federal (CPF)</i> , as well as Articles 415, paragraph I, and 416, paragraph I, of the CPF as in force before February 6, 2002; Articles 8, paragraph X, 10 and 12 of the <i>Reglamento de la LGEEPA en Materia de Residuos Peligrosos (RRP)</i> , and Mexican Official Standards (<i>Normas Oficiales Mexicanas</i>) NOM-052-SEMARNAT-1993 and NOM-053-SEMARNAT-1993”
El Hospital	The locality so named, in the municipality of Cuautla, state of Morelos, Mexico
Facility	The paint pigment production plant formerly operated by the Company BASF Mexicana, S.A. de C.V. and located in the locality of El Hospital in the municipality of Cuautla, state of Morelos
Historical drain	The original drainage system of the Ex Hacienda El Hospital historical monument
Industrial drain	The drainage system built and operated by BASF Mexicana; the sanitary drain mentioned in the factual record is the restroom drain of the Facility
Infomex-Federal	System for requesting access to public governmental information, operated by the Federal Access to Information and Data Protección Institute (IFAI)
Mexico	United Mexican States
Notification	SEM-06-003 (<i>Ex Hacienda El Hospital II</i>) and SEM-06-004 (<i>Ex Hacienda El Hospital III</i>) (consolidated), Article 15(1) Notification (12 May 2008)
Parties	The Parties to the North American Agreement on Environmental Cooperation; i.e., Canada, the United Mexican States, and the United States of America
Party	The Government of Mexico
Response	SEM-06-003 (<i>Ex Hacienda El Hospital II</i>) and SEM-06-004 (<i>Ex Hacienda El Hospital III</i>) (consolidated), Article 14(3) Party Response (10 January 2007)
Restoration plan	The program for the environmental restoration of the Facility described in the decisions of 20 July, 19 September, and 24 October 2000 in file no. B-0002/775, issued by the Industrial Inspection Branch (DGII) of the Office of the Federal Attorney for Environmental Protection (Profepa)
Secretariat	The Secretariat of the CEC
Submission SEM-06-003	SEM-06-003 (<i>Ex Hacienda El Hospital II</i>), Article 14(1) Submission (17 July 2006)
Submission SEM-06-004	SEM-06-004 (<i>Ex Hacienda El Hospital III</i>), Article 14(1) Submission (22 September 2006)

Consolidated Submissions	Submissions SEM-06-003 (<i>Ex Hacienda El Hospital II</i>) of 17 July 2006 and SEM-06-004 (<i>Ex Hacienda El Hospital III</i>) of 22 September 2006
Submitters	Myredd Alexandra Mariscal Villaseñor Justina Domínguez Palafox Félix Segundo Nicolás Karina Guadalupe Morgado Hernández Santos Bonifacio Contreras Carrasco Florentino Rodríguez Vaira Valente Guzmán Acosta María Guadalupe Cruz Ríos Cruz Ríos Cortés Silvestre García Alarcón Roberto Abe Almada

Units of measure, chemical elements, substances, and abbreviations used for reporting data

Total Cr	total chromium
Cr⁺⁶	hexavalent chromium
Pb	lead
As	arsenic
Fe	iron
Mo	molybdenum
Ni	nickel
Cu	copper
Co	cobalt
mg/kg	milligrams per kilogram
ppm	parts per million
µg/dl	micrograms per deciliter
ton/year	metric tons per year
CRETI	Hazardous residues that pose some of the characteristics of Corrosivity, Reactivity, Explosivity, Toxicity, Inflammability, or that contain hazardous substances that create danger, as well as containers, packaging, soils that have been contaminated when transferred to another site.

Notes of clarification

Due to the length of some of the Internet addresses referred to in this document, Google Shortener <<http://goo.gl/>> was used to abbreviate the URLs. In each case, the functionality of the corresponding link was checked and the viewing date was specified.

Maps and figures within this factual record were produced from publicly available sources, are not to scale, and are for illustrative purposes only.

In addition, due to the fact that the proceedings carried out by the Office of the Federal Attorney for Environmental Protection took place over a period of several weeks and, in some instances, several months, the reader is informed that dates of inspection records cited herein correspond to the date the facts were recorded, not the date when the record itself was opened. Finally, to facilitate the reading of certain passages of inspection records transcribed in this factual record, spelling and punctuation mistakes were corrected.

As to the use of the terms “pigments” and “pigment-containing material,” this factual record makes no determination as to hazardousness. Nor does the Secretariat express any opinion or determination as to the legality of any of the facts presented in this document.

1. Executive Summary

1. Articles 14 and 15 of the North American Agreement on Environmental Cooperation (the “NAAEC” or the “Agreement”) provide for a process allowing any person or nongovernmental organization to file a submission asserting that a Party to the NAAEC is failing to effectively enforce its environmental law. The Secretariat of the Commission for Environmental Cooperation (the “Secretariat” of the “CEC”) initially considers submissions to determine whether they meet the criteria contained in NAAEC Article 14(1). When the Secretariat finds that a submission meets these criteria, it then determines, pursuant to the provisions of NAAEC Article 14(2), whether the submission merits a response from the concerned Party. In light of any response from the concerned Party, and in accordance with the NAAEC, the Secretariat may notify the Council that the matter warrants the development of a factual record, providing its reasons for such recommendation in accordance with Article 15(1). Where the Secretariat decides to the contrary, it then proceeds no further with the submission.¹
2. On 17 July 2006, Myredd Alexandra Mariscal Villaseñor, acting for herself and representing Justina Domínguez Palafox, Félix Segundo Nicolás, Karina Guadalupe Morgado Hernández, Santos Bonifacio Contreras Carrasco, Florentino Rodríguez Viaira, Valente Guzmán Acosta, María Guadalupe Cruz Ríos, Cruz Ríos Cortés, and Silvestre García Alarcón, filed submission SEM-06-003 (*Ex Hacienda El Hospital II*).² On 22 September 2006, Roberto Abe Almada filed submission SEM-06-004 (*Ex Hacienda El Hospital III*), which endorses the assertions in submission SEM-06-003.³ Both submissions were filed with the Secretariat pursuant to NAAEC Article 14(1).
3. In consolidated submissions SEM-06-003 and SEM-06-004 (the “Consolidated Submissions”), the persons identified in the preceding paragraph (the “Submitters”) assert that Mexico is failing to effectively enforce its environmental law in connection with alleged illegal acts that occurred during the operation, shutdown, and dismantlement of a paint pigment production plant (the “Facility”) operated by the company BASF Mexicana, S.A. de C.V. (BASF Mexicana or the “Company”) and situated in the locality of El Hospital in the municipality of Cuautla, state of Morelos.
4. On 30 August and 28 September 2006, the Secretariat found that submissions SEM-06-003 and SEM-06-004, respectively, met all the requirements of NAAEC Article 14(1) and warranted a response from Mexico pursuant to NAAEC Article 14(2).⁴ Pursuant to paragraph 10.3 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “Guidelines”) in effect at that time,⁵ the Secretariat consolidated the two submissions.⁶
5. On 10 January 2007, pursuant to NAAEC Article 14(3), Mexico submitted its response to the Secretariat (the “Response”).⁷ The Party included 59 documentary appendices as well as the file of the administrative proceeding brought by the Office of the Federal Attorney for Environmental Protection (*Procuraduría Federal de Protección al Ambiente*–Profepa) against BASF Mexicana with a total of 58 volumes distributed in 13 binders. In its Response, Mexico gave notice of a pending administrative proceeding contained in Appendix I of the Response and requested – subsequently, on 15 January 2007 – that this information be treated as “confidential” pursuant to NAAEC Article 39 and section 17 of the Guidelines.⁸
6. In addition, Mexico submitted information concerning acts of inspection and surveillance, fines, and safety measures of which Profepa was in charge; maintained that Profepa followed up on the recommendations derived from an environmental audit of the Facility, and stated that the citizen complaints filed in relation to the matter raised by the Submitters were processed in a timely manner. Mexico’s Response stresses the alleged obstruction of restoration measures at the site by Roberto Abe Domínguez (deceased) and Roberto Abe Almada—who is, in addition, a submitter of SEM-06-004.⁹ Mexico indicates that, “as manifested by Profepa,”¹⁰ it is not permitted to provide information concerning the criminal investigation launched against BASF Mexicana.

7. On 12 May 2008, the Secretariat notified the Council that the preparation of a factual record was warranted in relation to the Consolidated Submissions¹¹ which, after consideration in light of Mexico's Response, the Secretariat found that the environmental authority did order the execution of plans and studies for environmental restoration of the Facility, which appears to respond to some of the Submitters' assertions. However, the information in the Response left open central questions relating to the effective enforcement of environmental law and the alleged illegal disposal of waste during the operation of the Facility, control of the contamination on other lots in El Hospital where wastes and materials from dismantlement of the Facility were disposed of, and the investigation and prosecution of environmental offenses. These open questions, identified in the Consolidated Submissions, are related to the enforcement of Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170 of the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA);¹² Articles 68, 69, 75, and 78 of the General Integrated Waste Prevention and Management Act (*Ley General para la Prevención y Gestión Integral de los Residuos*—LGPGIR);¹³ Articles 415 paragraph I, 416 paragraph I, and 421 of the text of the Federal Criminal Code (*Código Penal Federal*—CPF)¹⁴ in force prior to 6 February 2002, and Articles 8 paragraph X, 10, and 12 of the Regulation to LGEEPA respecting Hazardous Waste (*Reglamento de la LGEEPA en materia de Residuos Peligrosos*—RRP),¹⁵ as well as Mexican Official Standards NOM-052-SEMARNAT-1993 (NOM-052)¹⁶ and NOM-053-SEMARNAT-1993 (NOM-053).¹⁷
8. On 15 June 2012, in Council Resolution 12-03, the Council unanimously decided to instruct the Secretariat to prepare a factual record pursuant to NAAEC Article 15(2) in relation to Mexico's alleged ongoing failures to effectively enforce its environmental law. Pursuant to Council Resolution 12-03, this factual record presents relevant factual information on the assertions made and on the provisions of the following environmental laws:
 - (i) enforcement of LGEEPA Article 170 in regard to the alleged illegal disposal of hazardous waste in the community of El Hospital;
 - (ii) enforcement of LGEEPA Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170; RRP Articles 8 paragraph X, 10, and 12, and Mexican Official Standards NOM-052-SEMARNAT-1993 and NOM-053-SEMARNAT-1993, in regard to the alleged illegal disposal of hazardous waste at the Facility, and
 - (iii) enforcement of CPF Articles 415 paragraph I, 416 paragraph I, and 421 as in force prior to 6 February 2002.
9. The Council further found that it was not relevant to include information concerning alleged failures to effectively enforce the LGPGIR provisions.¹⁸
10. In accordance with Article 15(5) of the Agreement, on 17 October 2013, the Secretariat submitted the draft factual record of Consolidated Submissions to Council, from which date the Parties had 45 days to provide comments on the document's accuracy.¹⁹
11. On 27 November 2013, Mexico submitted various comments, including many on the accuracy of the draft factual record. On 24 December 2013, Canada likewise submitted various comments, including one identified as concerning the "factual accuracy" of the draft factual record. Pursuant to Article 15(6) of the Agreement,²⁰ the Secretariat incorporated the Party comments on the accuracy of the draft factual record as appropriate into the final version of the factual record and submitted it to the Council on 12 February 2014,²¹ for a vote in accordance with Article 15(7) of the Agreement.²²

2. Summary of the Consolidated Submissions

12. The Secretariat proceeds to summarize submissions SEM-06-003 and SEM-06-004.

2.1 Submission SEM-06-003 (Ex Hacienda El Hospital II)

13. The Submitters assert that Mexico is failing to effectively enforce various provisions of LGEEPA,²³ LGPGIR,²⁴ the National Waters Act (*Ley de Aguas Nacionales*—LAN),²⁵ CPR,²⁶ RRP,²⁷ the Regulation to the National Waters Act (*Reglamento de la Ley de Aguas Nacionales*—RLAN),²⁸ NOM-052, and NOM-053. They further assert that Mexico is failing to impose sanctions for violations documented in an environmental audit of the Facility (the “Environmental Audit”) of which Mexico allegedly had knowledge since 1997.²⁹
14. According to the Submitters, between August 1996 and March 1997, BASF Mexicana participated in the Profepa environmental audit program.³⁰ The Submitters assert that in allowing BASF Mexicana to participate in the audit program, Profepa made it possible for the Company to evade law enforcement during that period, since “the company, upon learning of the Audit’s results, failed to keep its promise.”³¹ The Submitters assert that the Company notified the public of the closure of the Facility in 1997.³²
15. The Submitters assert that BASF Mexicana illegally disposed of hazardous waste at the Facility and on the rest of the adjacent lot forming a part of Ex Hacienda El Hospital, which is colloquially known as “the farm” (hereinafter, the “Adjacent Lot”).³³ They further state that the Company dumped wastes on lots owned by residents of El Hospital during the dismantlement of the Facility.³⁴ They affirm that BASF Mexicana “gave former employees and local residents ... containers, boards, drying trays, and other materials that had been in contact with or contained hazardous waste, or sold these items to them at low prices”³⁵ and assert that the Company used hazardous waste contaminated debris for backfilling and grading of property owned by residents of the community of El Hospital.³⁶
16. The Submitters state that Profepa did not apply preventive or corrective measures, even though the soil at the Facility and on lots in the community was obviously contaminated.³⁷ Submission SEM-06-003 states that Profepa issued an administrative decision ordering BASF Mexicana to inventory materials and wastes at the Facility and to devise plans for the safe dismantlement of the Facility,³⁸ but that it did not include urgent enforcement measures nor did it require effective compliance.³⁹ Concerning the alleged contamination caused by illegal hazardous waste disposal on lots owned by residents of the community of El Hospital, the Submitters assert that waste is still there and that Profepa has not ordered sufficient measures to prevent harm to the environment.⁴⁰
17. According to the Submitters, Profepa does not possess its own environmental assessment, since all the studies in the possession of the authority were produced by the Company.⁴¹ The Submitters also contend that Profepa should not have accepted the restoration plan proposed by BASF Mexicana, which led the authority to order insufficient cleanup measures.⁴² The Submitters affirm that Profepa issued a certificate of completion of the environmental restoration work carried out at the Facility from May to July 2000 when Profepa’s Director of Pollution Source Inspection lacked the authority to issue such a certificate.⁴³ They further assert that the sanctions imposed on BASF Mexicana are insufficient since they only apply to deficiencies in the implementation of the restoration plan but none of the other violations mentioned in the Consolidated Submissions.⁴⁴
18. The Submitters maintain that a portion of the process wastewater discharge system was omitted from the plans submitted by BASF Mexicana to the authorities⁴⁵ and that Profepa included these plans in an administrative decision ordering the implementation of the restoration plan for the Facility,⁴⁶ which, they assert, gave rise to environmental offenses that have not been prosecuted.⁴⁷ The Submitters add that on 31 May 2005, the municipal authorities suspended the restoration plan for the Facility, finding inconsistencies in the drainage system plans, and that the environmental authority has yet to order the completion of the plan.⁴⁸

2.2 Submission SEM-06-004 (Ex Hacienda El Hospital III)

19. In submission SEM-06-004, Roberto Abe Almada endorses submission SEM-06-003⁴⁹ and elaborates on certain assertions concerning contamination at the Facility and on property owned by residents of El Hospital.⁵⁰ Roberto Abe Almada states that he is the executor for the estate of Roberto Abe Domínguez, the former owner of the premises on which the Facility is located and of the contiguous area not leased to BASF Mexicana (i.e., the Adjacent Lot).⁵¹ Roberto Abe Almada affirms that he negotiated environmental restoration measures for the Facility with the Company in the form of a judicial settlement, but that the Company allegedly prevented him from verifying their implementation.⁵² In addition, he asserts that he obtained information confirming the contamination of areas of the Adjacent Lot not covered by the judicial settlement, and therefore decided to notify the authority and pursue remedies before judicial and administrative bodies.⁵³
20. Mr. Abe Almada asserts that the studies and attestations attached to his submission prove that there is still soil contamination at the Facility despite the site restoration work.⁵⁴ He further states that certain lots in the community of El Hospital are contaminated with heavy metals as a result of the operation and dismantlement of the Facility.⁵⁵ In addition, he asserts that Profepa “did not order any remediation measures nor any measures to prevent the dispersal of the contaminants through the subsoil” on property in El Hospital even though he has technical information demonstrating that they are contaminated.⁵⁶ Finally, Mr. Abe Almada provides additional information concerning Mexico’s alleged failure to prosecute the environmental offenses asserted in submission SEM-06-003.⁵⁷

3. Summary of Mexico’s Response

21. In accordance with NAAEC Article 14(3), on 10 January 2007, Mexico filed its Response to the Consolidated Submissions.⁵⁸
22. In its Response, Mexico notes the existence of pending proceedings and asserts that the Consolidated Submissions should have been dismissed because they allegedly are not aimed at promoting law enforcement, because Mexico was allegedly not notified of the matter, and because the Submitters allegedly did not pursue the remedies available to them under the Party’s law.⁵⁹
23. Mexico filed its Response⁶⁰ with respect to the Submitters’ assertions of failures to effectively enforce the environmental law.⁶¹ Mexico asserts that it exercised its powers in respect of contamination of soil and bodies of water, hazardous waste management and disposal, environmental auditing, and processing of administrative proceedings and citizen complaints, as summarized below. Mexico’s Response also refers to the possible commission and prosecution of offenses. The following is a summary of the central issues addressed by Mexico in its Response.

3.1 Existence of pending proceedings

24. In its Response, Mexico gives notice of the existence of a pending administrative proceeding in accordance with NAAEC Article 14(3)(a) and paragraph 9.4 of the Guidelines then in effect.⁶²
25. This proceeding refers to an action in nullity (*juicio de nulidad*) filed by BASF Mexicana in Federal Tax and Administrative Court (*Tribunal Federal de Justicia Fiscal y Administrativa*—TFJFA) against the administrative decision of 20 April 2006, issued by the Minister of Environment and Natural Resources in file no. XV/2006/58 partially amending Profepa’s administrative decision of 20 December 2005 that terminated the administrative proceeding brought against BASF Mexicana in file no. B-002/0775.⁶³ On 8 September

2006, the examining magistrate in the Fifth Metropolitan Regional Chamber of the TFJFA ruled that the proceeding needed to be regularized and summoned the Minister of Environment and Natural Resources to respond.⁶⁴

26. Mexico contends that these considerations trigger the operation of NAAEC Article 14(3)(a) and paragraph 9.4 of the Guidelines and that, consequently, the Secretariat should not give further consideration to the Consolidated Submissions.⁶⁵

3.2 Admissibility and other preliminary issues

27. Mexico argues that the Consolidated Submissions should have been dismissed pursuant to NAAEC Article 14(1) and (2).⁶⁶ Mexico contends that submission SEM-06-004 is not aimed at promoting law enforcement but at harassing industry— i.e., BASF Mexicana—since it does not center around acts or omissions by Mexico but rather the fulfillment of commitments between private parties, and maintains that the Submitter of SEM-06-004, Roberto Abe Almada, repeatedly blocked access to the Facility and the Adjacent Lot for the purpose of implementing the restoration measures ordered by Profepa.⁶⁷
28. Mexico further argues for dismissal by asserting that the Submitters of SEM-06-003 neither notified the relevant authorities of the matter⁶⁸ nor pursued the remedies available to them under the Party's law.⁶⁹ Mexico contends that the NAAEC and the Guidelines stipulate that the Submitters themselves must pursue these remedies but that they did not do so, and in addition that the citizen complaints filed by Carlos Álvarez Flores and Roberto Abe Domínguez cannot be given consideration since they withdrew these complaints.⁷⁰
29. Mexico states that it did not fail to enforce the provisions cited by the Submitters since these do not contemplate obligations of the Party in question that are subject to Secretariat review.⁷¹ Mexico argues that the Secretariat should not review other provisions because: they are not applicable to the matter raised in the Consolidated Submissions;⁷² they bear no relation to any documented assertion;⁷³ they were not in force at the time of Profepa's acts of inspection and surveillance;⁷⁴ or they are not environmental law in the sense of the NAAEC.⁷⁵

3.3 Enforcement measures

30. In its Response, Mexico cites the Submitters' assertions concerning alleged failures to effectively enforce the environmental law and provides information concerning measures implemented in relation to soil contamination, management and final disposal of hazardous waste, wastewater discharges, initiation of administrative proceedings, the possible commission and the prosecution of offenses, omissions discovered in the course of the environmental audit, and processing of citizen complaints.⁷⁶

3.3.1 Soil contamination

31. In regard to the measures implemented by Mexico in relation to the alleged soil contamination caused by BASF Mexicana at the Facility and on the Adjacent Lot during the operation and dismantlement of the Facility,⁷⁷ Mexico asserts that LGEEPA Articles 134, 135, 136, and 139 were enforced through the implementation of various administrative decisions⁷⁸ whereby BASF Mexicana was ordered to implement an environmental restoration plan for the Facility (the "restoration plan"),⁷⁹ and perform a characterization study of the environment, soils, and groundwater, and also carry out soil sampling.⁸⁰ Mexico argues that with these measures, it also enforced LGPGIR Articles 69 and 75, even where these provisions came into force subsequent to the occurrence of the facts underlying the submission.⁸¹

32. In addition, Mexico asserts that the provisions relating to hazardous waste treatment⁸² and intended to control the discharge, dumping, or seepage thereof⁸³ were enforced by means of an inspection performed 23-25 June 1998 on the property of Roberto Abe Domínguez in his capacity as owner of Ex Hacienda El Hospital.⁸⁴ The Response underlines that the submitter Roberto Abe Almada accompanied this inspection and was therefore aware of Mexico's enforcement activities.⁸⁵ Mexico maintains that BASF Mexicana could not implement the measures ordered by Profepa because of "a material and legal impediment caused by the submitter himself, who ousted the sanctioned Company from the premises."⁸⁶
33. In regard to the assertion of soil contamination persisting within and outside the Facility, Mexico asserts that it effectively enforced its environmental law in that Profepa certified completion of the environmental restoration work at the Facility by means of a decision of 26 July 2002⁸⁷ and ordered BASF Mexicana to take various measures to continue with the cleanup and remediation of the Adjacent Lot.⁸⁸ Mexico emphasizes that the Submitter, his father, and his attorneys prevented BASF Mexicana from entering Ex Hacienda and thereby obstructed the remediation measures.⁸⁹

3.3.2 Hazardous waste management and final disposal

34. Mexico asserts that it effectively enforced the hazardous waste management provisions⁹⁰ by issuing administrative decisions ordering BASF Mexicana to take various waste management and final disposal measures during dismantlement of the Facility, such as dismantlement and disposal of the industrial drainage system, the wastewater treatment plant, roofs, and metal structures as well as the removal of contaminated walls and soil.⁹¹ Mexico asserts that BASF Mexicana was ordered to "remove and provide containment for objects and debris from various lots owned by residents" of the locality of El Hospital.⁹²
35. Mexico contends that the environmental authorities are only empowered to monitor strict compliance with hazardous waste management provisions and that in the case at issue these powers were "fully observed and exercised"⁹³ since the measures ordered were verified by an inspection⁹⁴ and an administrative proceeding was instituted against BASF Mexicana, culminating in the imposition of a fine.⁹⁵

3.3.3 Wastewater discharges

36. Mexico asserts that while the provisions applicable to the operation of the Facility's wastewater discharge system⁹⁶ are not related to an assertion documented in the Consolidated Submissions, they were in fact "strictly observed" through verification of compliance with the discharge conditions authorized in a concession to BASF Mexicana.⁹⁷ In this regard, Mexico asserts that the industrial activities of BASF Mexicana "did not alter the quality of the groundwater or sediments in Espiritu Santo creek."⁹⁸

3.3.4 Administrative proceedings instituted by the environmental authorities

37. In regard to the general rules governing acts of inspection and surveillance set out in LGPGIR and LGEEPA,⁹⁹ Mexico states that the authority properly observed the provisions in force at the time the inspection visits were made.¹⁰⁰ Concerning the adoption of corrective or urgent measures as prescribed by LGEEPA Article 167, Mexico asserts that in various decisions Profepa ordered BASF Mexicana to implement measures for remediation of the site in question.¹⁰¹ In relation to the safety measures contemplated in LGEEPA Article 170, Mexico asserts that Profepa ordered the total temporary shutdown of the Facility.¹⁰² In regard to the imposition of sanctions as provided by LGEEPA,¹⁰³ Mexico states that it effectively enforced the environmental law by fining BASF Mexicana a total of 1,872,000 pesos,¹⁰⁴ the approximate equivalent of US\$176,000, as of December 2005.¹⁰⁵

3.3.5 Possible commission and prosecution of offenses

38. In regard to the imposition of criminal sanctions for environmental offenses,¹⁰⁶ Mexico asserts that Profepa complied with its obligation to assist the Office of the Attorney General of the Republic (*Procuraduría General de la República*—PGR) through the designation of experts and the issuance of expert reports.¹⁰⁷
39. Nevertheless, Mexico responds that it cannot provide the Secretariat with a copy of the criminal proceedings, since the criminal investigations “were carried out by the Office of the Attorney General of the Republic.” It adds that the information relating to a criminal investigation is not public and must be kept confidential pursuant to the Federal Transparency and Access to Public Governmental Information Act (*Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental*—LFTAIPG) and the Federal Code of Criminal Procedure (*Código Federal de Procedimientos Penales*—CFPP).

3.3.6 Non-compliance discovered during the environmental audit

40. In reference to the instances of non-compliance allegedly discovered by Profepa in the course of the environmental audit, Mexico indicates that environmental audits are voluntary environmental self-regulation processes governed by provisions not cited in the Consolidated Submissions. Mexico further indicates that sanctions do not ensue from environmental audits, the purpose of which is to “address aspects not covered by the law.” Mexico asserts that the information from the environmental audit served as a basis for devising effective enforcement measures.

3.3.7 Processing of citizen complaints

41. In regard to the effective enforcement of provisions relating to processing of citizen complaints,¹⁰⁸ Mexico contends that the Submitters of SEM-06-003 did not file a citizen complaint and thus cannot allege a failure of effective enforcement. Mexico asserts that the citizen complaints filed by Carlos Álvarez Flores and Roberto Abe Domínguez were addressed and followed up on, but the withdrawal of these complaints caused the corresponding files to be closed as prescribed by law; therefore, it cannot be asserted, as the Submitters do, that there was a failure of effective enforcement.¹⁰⁹

4. Scope of the Factual Record

42. This section describes the scope of the factual record for submission SEM-06-003 (*Ex Hacienda El Hospital II*) and consolidated submission SEM-06-004 (*Ex Hacienda El Hospital III*).
43. Council Resolution 12-03 instructed the Secretariat as regards the preparation of a factual record for the Consolidated Submissions, as recommended by the Secretariat in its NAAEC Article 15(1) notification to Council, with the exception of the assertions relating to enforcement of the LGPGIR.¹¹⁰
44. In accordance with Council Resolution 12-03, the Secretariat hereby presents relevant factual information relating to the assertions and provisions of environmental law listed below:
 - (i) enforcement of LGEEPA Article 170 in regard to the alleged illegal disposal of hazardous waste in the community of El Hospital;
 - (ii) enforcement of LGEEPA Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170; RRP Articles 8 paragraph X, 10, and 12, and Mexican Official Standards NOM-052-SEMARNAT-1993 and NOM-053-SEMARNAT-1993, in regard to the alleged illegal disposal of hazardous waste at the Facility; and

- (iii) enforcement of CPF Articles 415 paragraph I, 416 paragraph I, and 421 as in force prior to 6 February 2002.
45. The text of the provisions (and amendments thereto) included in this factual record is provided in Appendix 10.

5. Information-gathering Process

46. In fulfillment of Council Resolution 12-03,¹¹¹ on 9 August 2012 the Secretariat sent the NAAEC Parties its overall workplan for the preparation of the factual record (see Appendix 3).¹¹² The Submitters received a copy of this plan the same day.¹¹³
47. Pursuant to NAAEC Article 15(4), in the preparation of a factual record:
- ... the Secretariat shall consider any information furnished by a Party and may consider any relevant technical, scientific or other information:
 - (a) that is publicly available;
 - (b) submitted by interested nongovernmental organizations or persons;
 - (c) submitted by the Joint Public Advisory Committee; or
 - (d) developed by the Secretariat or by independent experts.¹¹⁴
48. For the preparation of the factual record, the Secretariat requested the advice of technical and legal experts at various phases of the process. Dr. Marisol Anglés¹¹⁵ assisted the Secretariat in determining the scope of information to be included in the factual record, and by guiding it in the preparation of a request for relevant factual information. Montserrat Rovalo¹¹⁶ helped collect and organize information from federal sources, verify data, and structure the draft factual record.

5.1 Requests for information to the NAAEC Parties and JPAC

49. On 29 August 2012, the Secretariat sent requests containing examples of relevant factual information to the United States¹¹⁷ and Canada.¹¹⁸ On 18 September 2012, the Secretariat sent an invitation to JPAC to provide any relevant factual information (see Appendix 6).¹¹⁹
50. On 22 October 2012, the Secretariat requested clarification in regard to the scope determined by the Council in Resolution 12-03.¹²⁰ The Party in question communicated its availability for any clarification in relation to the scope determined by the Council.¹²¹

5.2 Requests for information to the Party in question

51. On 29 August 2012, the Secretariat sent a questionnaire to the Party in question.¹²² On 2 October 2012, Mexico responded to the Secretariat's request for information and provided documents on four compact discs that were used in the preparation of the factual record.¹²³
52. On 19 October 2012, the Secretariat requested the government of Mexico to declassify documentation contained in Appendix I of the Response.¹²⁴ The Party responded promptly to this request on 26 October 2012, confirming the declassification of the documents requested.¹²⁵
53. On 7 December 2012, the Secretariat requested information from Mexico relating to the samples, analytical results, and technical reports produced by Profepa as well as documents relating to the activities of the Profepa office in the state of Morelos, among others.¹²⁶

54. On 30 January 2013, the Secretariat requested confirmation from the Party as to “whether there was any act of inspection and/or surveillance carried out after 31 May 2005 in relation to the pigments allegedly buried at Ex Hacienda El Hospital.”¹²⁷ The Party kept the Secretariat informed of the search for this documentation.¹²⁸
55. On 24 October 2012, the Secretariat submitted a request for information to the PGR’s Special Unit for Investigation of Environmental Offenses and Offenses Contemplated in Special Laws (*Unidad Especializada en Investigación de Delitos contra el Ambiente y Previstos en Leyes Especiales*—UEIDAPLE). This request was filed in accordance with NAAEC Article 21(1)(a) with reference to Article 16 of the Federal Code of Criminal Procedure and its purpose was to gather relevant factual information relating to the *nolle prosequi* (i.e. the order not to pursue the case further) decisions in investigations 43/98, 58/98, A.P.6344/FEDA/98, A.P.6244/FEDA/98, A.P.6243/FEDA/98, A.P.38/2001, and A.P.897/FEDA/2000, as well as additional public information held by Profepa (see Appendix 8).¹²⁹ In its request, the Secretariat made reference to the criteria applicable to determination of the period after which access to the *nolle prosequi* decision may be granted,¹³⁰ and took into consideration the PGR criteria applicable to requests for information, filing the request directly with the agency responsible for the investigation of the offense.¹³¹
56. On 12 November 2012, UEIDAPLE informed the Secretariat that this request had to be made to the Federal Access to Information and Data Protection Institute (*Instituto Federal de Acceso a la Información y Protección de Datos*—IFAI),¹³² and the Secretariat consequently submitted this request to the director of the PGR Liaison Unit.¹³³ On 11 February 2013, the Secretariat consulted the Infomex system and took cognizance of a document dated 7 February 2013 whereby the Legal Affairs Branch (*Dirección General de Asuntos Jurídicos*) of the Legal and International Affairs Office (*Subprocuraduría Jurídica y de Asuntos Internacionales*) of the PGR gave notice of the following:
- In this regard, you are hereby informed that your submission was referred to the Special Unit for Investigation of Federal Offenses which, through the Special Unit for Investigation of Environmental Offenses and Offenses Contemplated in Special Laws, gave notice that after an exhaustive search for the information requested, a *nolle prosequi* decision was found that meets the criteria of Article 16 of the Federal Code of Criminal Procedure.¹³⁴
57. The Secretariat found that it was essential to obtain all documentation concerning the other criminal investigations and so notified the IFAI panel, providing the relevant documentation.¹³⁵ On 11 March 2013, the President of the IFAI allowed the motion,¹³⁶ and in the public session of 5 June 2013, the IFAI found that, contrary to UEIDAPLE’s former decision, the Secretariat request for information should be through NAAEC Article 21 but not through IFAI (i.e. PGR’s Liaison Unit).¹³⁷
58. With a view to confirming the existence of information relating to measures taken by the PGR, on 6 March 2013, the Secretariat submitted a second request for information to the director of the PGR Liaison Unit.¹³⁸ On 10 May 2013, the Legal and International Affairs Office gave notice that a session of the information committee of that institution had “confirmed the non-existence of criminal investigations 43/98, 58/98, 6243/FEDA/2013, 6344/FEDA/98, and 38/2001.”¹³⁹ In addition, the PGR confirmed that public information was available for one of the above referenced criminal investigations, 6244/FEDA/98.¹⁴⁰ Notwithstanding the notification of non-existence of information, BASF Mexicana obtained the public version of the criminal investigation 6243/FEDA/98 and provided certified copies to the Secretariat.¹⁴¹
59. In accordance with NAAEC Article 21(1)(a), on 24 October 2012, the Secretariat made a request to the director of the Federal Commission for the Prevention of Health Risks (*Comisión Federal para la Prevención de Riesgos Sanitarios*—Cofepris) of the Ministry of Health (see Appendix 8).¹⁴² While the request was not responded to by the entity in question, the information was obtained from the Infomex system.¹⁴³

5.3 Requests for information to the Submitters

60. On 29 August 2012, the Secretariat sent a request for information to the Submitters.¹⁴⁴ On 23 October 2012, the Secretariat sent a request for information to Roberto Abe Almada in relation to complaints filed with Profepa as well as documents submitted to the Industrial Inspection Branch (*Dirección General de Inspección Industrial—DGII*) of Profepa.¹⁴⁵ The Secretariat sent other requests directly to Roberto Abe Almada and, in some cases, obtained the information through the intervention of third persons.¹⁴⁶

5.4 Other information sources consulted by the Secretariat

61. To meet the requirements of Council Resolution 12-03, the Secretariat consulted other information sources contemplated in NAAEC Article 15(4) and paragraph 11.1 of the Guidelines.¹⁴⁷
62. On 18 October 2012, the Secretariat received thirteen letters from residents of El Hospital containing assertions relating to their health and to the situation prevailing in their community.¹⁴⁸
63. On 14 November 2012, the Secretariat's Legal Officer conducted a field visit to the area of interest in order to interview six residents of the locality of El Hospital.¹⁴⁹ In addition, it conducted a tour of Ex Hacienda El Hospital.¹⁵⁰ On 15 November 2012, the Secretariat's Legal Officer held interviews with Roberto Abe Almada, with Profepa inspectors, and with a former PGR official.
64. Other entities and persons received a request for information from the Secretariat, including the *Cámara Mexicano-Alemana de Comercio y Industria* (Camexa);¹⁵¹ a researcher from the *Universidad Autónoma Metropolitana-Azcapotzalco*,¹⁵² and a researcher from the Institute of Biotechnology of the *Universidad Nacional Autónoma de México*.¹⁵³
65. On 19 September 2012, the Secretariat sent BASF Mexicana a request for information as well as examples of relevant factual information.¹⁵⁴ On 15 October 2012, BASF Mexicana provided the Secretariat with documentary information on acts of the judicial and administrative authorities in relation to the matter raised in the Consolidated Submissions; the alleged delivery of hazardous materials and waste from the Facility to persons in the locality of El Hospital; the alleged disposal of hazardous waste at the Facility; and, the procedure governing access to documents relating to the investigation and prosecution of environmental offenses.¹⁵⁵
66. On 7 November 2012, the Secretariat sent a second request to BASF Mexicana for information concerning an environmental risk study,¹⁵⁶ and the Company responded by providing relevant factual information.¹⁵⁷ On 21 November 2012, the Secretariat sent another request for information to BASF Mexicana in relation to blood testing done on former Company employees and with respect to donation of materials to residents of El Hospital,¹⁵⁸ which request was responded to by the Company.¹⁵⁹ On 21 January 2013, the Secretariat made a request to the BASF Mexicana representative to interview officials, former officials, former employees, and legal and technical consultants of the Company.¹⁶⁰ On 14 February 2013, the Secretariat conducted various interviews. The information obtained served to support the preparation of this factual record.
67. At the Secretariat's request, on 4 April 2013 BASF Mexicana submitted a document with ten appendices containing information relating to the cleanup activities conducted at the Adjacent Lot after 31 May 2005 and the measures taken by the Company to obtain information in the possession of the PGR.¹⁶¹ On 9 September 2013, the Secretariat received public documents related to the criminal investigation 6243/FEDA/98 obtained by BASF Mexicana after its repeated requests to PGR.¹⁶²

6. Environmental Law in Question

68. LGEEPA Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170, cited in the submission, were revised by an order published in the DOF on 13 December 1996. This same order revised, added, and repealed various provisions of LGEEPA with the object of laying down guidelines for an environmental policy based on the principle of sustainable development; strengthening environmental policy instruments; placing stricter limits on administrative discretion, and broadening opportunities for public participation.¹⁶³
69. In regard to CPF Articles 415 paragraph I, 416 paragraph I, and 421 in respect of environmental offenses,¹⁶⁴ these were added with the incorporation of Title Twenty-Five, “Environmental Offenses,” into the Criminal Code for the Federal District in Matters under Ordinary Jurisdiction and for the Whole Republic in Matters under Federal Jurisdiction (now the Federal Criminal Code (CPF)), by an order published in the DOF on 13 December 1996.¹⁶⁵
70. Previously, LGEEPA defined environmental offenses in Title Six, “Control and Safety Measures and Sanctions,” Chapter VI, “Federal Offenses,” which included some offenses relating to hazardous materials and waste.
71. RRP Articles 8 paragraph X, 10, and 12, published in the DOF on 25 November 1988, were not revised between the date of filing of submission SEM-06-003 and the issuance of Council Resolution 12-03 on 15 June 2012.
72. Mexican Official Standard NOM-052-SEMARNAT-1993, *Establishing the characteristics of hazardous waste, the list thereof, and the thresholds above which a waste is considered hazardous due to its toxicity in the environment* (“NOM-052”), was originally published as NOM-CRP-001-ECOL/93,¹⁶⁶ later changed to NOM-052-ECOL-1993,¹⁶⁷ and then changed to NOM-052-SEMARNAT-1993.¹⁶⁸ The content of NOM-052 was updated by publication in the DOF on 23 June 2006, and the year in its nomenclature was changed to NOM-052-SEMARNAT-2005;¹⁶⁹ however, this factual record does not address the revised standard, since it was not in force at the time of the facts addressed by the Consolidated Submissions.

6.1 Prevention and control of soil contamination

73. Environmental contamination caused by hazardous waste can occur at any stage of the management thereof and there are, basically, three categories of contaminant releases: controlled discharges, such as emissions resulting from generation, treatment, and final disposal; uncontrolled discharges, or discharges arising from inadequate waste treatment and disposal practices; and accidental discharges occurring during storage, transportation, and management operations in general.¹⁷⁰ Inadequate management of hazardous materials at the various phases of their life cycle can give rise, among other consequences, to soil contamination as a result of unforeseen events causing accidental spills or ongoing releases into the environment, often due to inadequate practices leading to leaks and spills and, most commonly, as a consequence of heedless waste disposal.¹⁷¹

6.1.1 LGEEPA Articles 134, 135 paragraph III, 136, and 139: criteria for prevention and control of soil contamination

74. Since the passage of LGEEPA in 1988, ecological criteria have been considered matters of federal interest.¹⁷² Later, with the revision of LGEEPA in 1996, ecological criteria were defined as “[T]he mandatory precepts contained in this Act, whose purpose is to guide measures for preservation and restoration of ecological stability, sustainable natural resource use, and environmental protection, which shall have the status of environmental policy instruments.”¹⁷³ LGEEPA ecological criteria apply to both private parties, where they engage in activities causing adverse environmental impacts, and the authorities, where they exercise normative, management, and surveillance powers.¹⁷⁴

75. According to Mexico, LGEEPA Articles 134 and 135 must be analyzed and assessed conjointly, since Article 134 establishes criteria for the prevention and control of soil contamination and for the framing of the corresponding national policy, while Article 135 determines the cases in which these criteria must be considered.¹⁷⁵
76. Among the LGEEPA provisions for the prevention and control of soil contamination, Article 134, cited in the Consolidated Submissions, provides that “the following criteria shall be considered”:¹⁷⁶
- I. It is the responsibility of the state and society to prevent soil contamination;
 - II. Wastes must be controlled given that they constitute the principal source of soil contamination;
 - III. It is necessary to prevent and reduce the generation of solid, municipal and industrial wastes, to incorporate techniques and procedures for their reuse and recycling, and to regulate their efficient management and final disposal;¹⁷⁷
 - IV. The use of pesticides, fertilizers and toxic substances must be compatible with the stability of ecosystems and must take account of their effects on human health, so as to prevent any damage they may cause,¹⁷⁸ and
 - V. The necessary actions shall be taken to restore or reestablish the quality of soil that is contaminated by the presence of hazardous materials or waste, in such a manner that it can be used in any type of activity contemplated in the applicable urban development or ecological zoning plan.¹⁷⁹
77. Soil contamination has serious consequences for human health. Some of these consequences arise when a site is returned to use, especially if the new users are unaware that the site is contaminated and people come into contact with this soil accidentally. For example, agricultural use of contaminated soil also causes health problems where the contaminants are transferred to crops and livestock, since they then enter the food chain and cause various human health effects, depending on the chemical substances implicated.¹⁸⁰
78. LGEEPA Article 135 paragraph III, cited in the submission, provides that “[T]he criteria for the prevention and control of soil contamination shall be considered in the following cases:¹⁸¹
- ...
- III. The generation, management, and final disposal of solid, industrial, and hazardous wastes as well as for the granting of any approvals or permits for such purpose.¹⁸²
79. “Generation” is “the act of producing hazardous waste”;¹⁸³ “management” is “the set of operations including storage, collection, transportation, reuse, treatment, recycling, incineration, and final disposal”;¹⁸⁴ and “final disposal” is the “act of depositing or permanently containing waste on sites and at facilities whose characteristics are sufficient to prevent its release into the environment and the ensuing impacts on human health and on ecosystems and their components.”¹⁸⁵
80. Since soil contamination is mainly caused by inadequate disposal of hazardous waste, accidental spills of chemicals during transportation, and certain specific activities,¹⁸⁶ LGEEPA Article 136 sets out “the conditions that shall be met by wastes accumulating or that may accumulate and are dumped or seep into soils,”¹⁸⁷ such that these “shall meet the conditions necessary to prevent or avoid”.¹⁸⁸
- I. Soil contamination;
 - II. Harmful alterations of soil biological processes;
 - III. Alterations of the soil that jeopardize its enjoyment, use, or exploitation, and;
 - IV. Health risks and problems.¹⁸⁹
81. The legal framework governing soil contamination caused by hazardous substances and waste, in addition to LGEEPA and as mandated thereby, includes several regulations,¹⁹⁰ pursuant to Article 139, cited in the submission, which provides:

Any discharge, dumping, or seepage of contaminating substances or materials into soil shall comply with the provisions of this Act, the National Waters Act, their regulatory provisions, and any applicable Mexican official standards that may be issued by the Ministry.¹⁹¹

82. In view of the express reference in LGEEPA Article 139 (which is within the scope of this factual record) to the LAN, and in order to better understand the enforcement regime for LGEEPA Article 139, it should be noted that LAN Article 119 paragraph XI provides that the National Waters Commission (*Comisión Nacional del Agua*—Conagua) “shall sanction, as prescribed by this act, ... the dumping or depositing, in violation of the law, of refuse, toxic hazardous substances, and sludge from wastewater treatment processes, in rivers, riverbeds, ponds, marine waters, and other bodies of water or watercourses, or the seepage of materials and substances that contaminate groundwater.”¹⁹²

6.1.2 LGEEPA Articles 150, 151, and 152 bis; RRP Articles 8 paragraph X, 10, and 12, NOM-052, and NOM-053: management of hazardous materials and waste

83. Hazardous waste may be composed of one or more components with different degrees of hazardousness. “Hazardousness” refers to any inherent or intrinsic property of the component that endows it with the capacity to cause harms or losses and, in particular, to cause adverse impacts on ecosystems or human health. The hazardous components present in wastes may be biological agents, chemicals, or physical components. A waste’s hazardousness depends on factors such as the virulence of the infectious organisms, the toxicity of the chemical substances, the corrosivity, reactivity, flammability, or explosiveness of the components, or the form of the objects present.¹⁹³
84. For this reason, the classification of a material or waste as hazardous is one of the most crucial stages in the management thereof, since on this basis materials and wastes so classified are subjected to more rigorous control with the aim of managing them more safely and preventing or reducing their risks to health and/or the environment.¹⁹⁴
85. LGEEPA defines as hazardous materials those “[e]lements, substances, compounds, wastes, or mixtures thereof which, irrespective of their physical state, pose a risk to the environment, health, or natural resources due to their corrosive, reactive, explosive, toxic, flammable, or biological/infectious characteristics.”¹⁹⁵ “Hazardous waste” is that which, due to its corrosive, reactive, explosive, toxic, flammable, or biological/infectious characteristics, poses a threat to ecological stability or the environment.¹⁹⁶
86. NOM-052 enables the generator to ascertain whether its wastes are hazardous; thus:

[wastes] exhibiting one or more of the following characteristics shall be considered hazardous: corrosivity, reactivity, explosiveness, toxicity, flammability and/or biological or infectious nature...

87. In addition to specifying the properties that make a waste hazardous,¹⁹⁷ NOM-052 contains lists for the identification and classification of hazardous waste, including waste deriving from the use of hazardous raw materials in paint production,¹⁹⁸ and the generation of waste, bags, or packaging of hazardous raw materials used in paint production.¹⁹⁹

88. Pursuant to NOM-052:

[W]astes classified as hazardous and those possessing the characteristics of hazardousness pursuant to this Mexican Official Standard shall be managed in accordance with the [RRP], the applicable Mexican Official Standards, and any other applicable procedures.²⁰⁰

89. Complementing this provision, NOM-053²⁰¹ establishes the procedure for conducting extraction testing, which is:
the laboratory procedure for determining the mobility of the components of a waste that make it hazardous due to their toxicity in the environment.

90. NOM-053 sets out, among other aspects, requirements for the preservation and management of samples, including the taking of a minimum of two representative samples of the waste, as well as the procedures to be followed for the analysis of samples.²⁰²

91. In 1988, Profepa adopted a set of “interim criteria” that comprised environmental restoration values for sites contaminated with heavy metals but did not possess the legal form necessary for their direct enforcement.²⁰³ These criteria were used by the environmental authorities to establish restoration levels in the Facility and the Adjacent Lot.²⁰⁴

92. In regard to the conditions governing the management of hazardous materials and waste, LGEEPA Article 150, cited in the Consolidated Submissions, provides as follows:²⁰⁵

Hazardous materials and wastes shall be managed in accordance with this Act, its Regulation [the RRP], and any applicable Mexican Official Standards issued by the Ministry [e.g., NOM-052 and NOM-053], after soliciting the opinion of the ministries of Trade and Industrial Development, Health, Energy, Communications and Transportation, the Marine, and the Interior. Regulation of the management of these materials and wastes shall include, as applicable, their use, collection, storage, transportation, reuse, recycling, treatment, and final disposal.

The Regulation and the Mexican Official Standards to which the preceding paragraph refers shall contain the criteria and lists classifying materials and waste as hazardous, identifying them by their level of hazardousness, and considering their characteristics and volumes. The Ministry has jurisdiction over the regulation and control of hazardous materials and wastes.

In addition, the Ministry, in coordination with the agencies to which this article refers, shall promulgate Mexican Official Standards that shall establish the requirements for the labeling and packing of hazardous materials and wastes, as well as for the assessment of risk and information relating to contingencies and accidents that may arise in the course of their management, particularly as regards chemical substances.

93. Final disposal of hazardous waste entails that it be moved to a site meeting the safety, design, and operability conditions necessary to minimize the risk of environmental contamination. Given the characteristics of hazardous waste, final disposal implies long-term storage. Thus, it is necessary to minimize the quantity of waste subject to final disposal, and to this end, technological, environmental, and economic aspects must be taken into account.²⁰⁶

94. Further to LGEEPA Article 150, RRP Article 8 paragraph X, cited by the Submitters, provides that: [t]he hazardous waste generator shall:”

Provide the appropriate final disposal for its hazardous waste in accordance with the methods set out in the Regulation and with the provisions of any applicable environmental technical standards;

95. It should be noted that the following activities related to hazardous waste require Semarnat’s approval pursuant to RRP Article 10:

Approval of the Ministry is required in order to install and operate systems for the collection, storage, transportation, housing, reuse, treatment, recycling, incineration, and/or final disposal of hazardous

waste, as well as for the provision of services relating to these operations, without prejudice to the applicable health and occupational health and safety provisions.

96. In addition to the approvals to which RRP Article 10 refers, hazardous waste management requires that anyone performing this work shall possess training and information concerning work procedures, precautionary and safety measures, what to do in the event of an emergency, and the risks to which they are exposed. In addition, there must be contingency plans and emergency procedures designed to ensure a rapid and appropriate response to situations where such a response is warranted. Special attention must be paid to spill response procedures and to the availability of the supplies necessary for the containment and repacking thereof.²⁰⁷ In this regard, RRP Article 12, cited in the Consolidated Submissions, provides that:

Authorized persons under Article 10 of this Regulation shall, prior to the commencement of their operations, submit:

- I. A training program covering the personnel responsible for hazardous waste management and the equipment relating to it;
- II. Documentation certifying the person holding technical responsibility; and
- III. A contingency response plan.

97. As regards responsibility for hazardous waste generation, the generator is responsible for the proper management thereof throughout its life cycle, regardless of whether any other party has been involved in the process at any stage. This principle is essential in order to assign the costs of prevention of hazardous waste generation and management. The direct or indirect generators of hazardous waste shall take charge of the costs associated with the corresponding waste prevention, use, treatment, and/or final disposal measures.²⁰⁸ LGEEPA Article 151, cited in the Consolidated Submissions, adopts the principle that the generator of hazardous waste is responsible for its proper management throughout its life cycle, and provides as follows:²⁰⁹

[The] responsibility for the management and final disposal of hazardous waste rests with the generator. Where hazardous waste management and final disposal services are contracted out to companies authorized by the Ministry and wastes are delivered to these companies, responsibility for operations shall rest with these companies, irrespective of any responsibility that may rest with the generator.

Anyone who generates, reuses, or recycles hazardous waste shall so notify the Ministry as prescribed by the Regulation to this Act.

In approvals for the establishment of hazardous waste containment facilities, only wastes whose reuse, recycling, or thermal or physicochemical destruction is technically or economically unfeasible shall be included, and the containment of hazardous waste in the liquid state shall not be permitted.

98. Remediation is the “set of measures carried out on a contaminated site”²¹⁰ and its purpose is to eliminate or reduce the concentrations of contaminants or to bring them within limits that do not pose a risk to health and the environment. This may be accomplished by: i) permanently decreasing the concentrations of the contaminants; ii) decreasing the bioavailability and/or solubility of the contaminants; iii) preventing the dispersion of the contaminants in the environment; or, iv) establishing institutional controls.²¹¹

99. Concerning soil remediation, LGEEPA Article 152 *bis* provides that:

Where the generation, management, or final disposal of hazardous materials or waste causes soil contamination, the persons responsible for such operations shall take the measures necessary to restore the soil to its original condition, so that it may be used for any of the activities contemplated in any urban development or ecological zoning plan applicable to the property or zone in question.²¹²

6.2 Articles 169 and 170: Corrective measures and safety measures

100. Semarnat, acting by Profepa,²¹³ is the federal environmental authority competent to carry out acts of inspection and surveillance.²¹⁴ Inspection is a statutorily defined act of authority whose purpose is to verify the legality of, and compliance with, licenses, permits, and approvals issued by the competent authorities to private parties, companies, social groups, and also governmental authorities and entities.²¹⁵ During the course of an inspection visit, Profepa must produce the corresponding record, which is the document containing detailed information about the environmental status of establishments under federal jurisdiction. On the forms used by Profepa, the facts and omissions relating to the environmental obligations of the establishments are detailed, as are any administrative and procedural measures ordered by means of an agreement or administrative decision with a view to decreasing the generation of contaminants and protecting the environment.²¹⁶

101. With respect to corrective measures, LGEEPA Article 169, cited in the Consolidated Submissions, provides as follows:

The relevant administrative decision shall indicate or include, as the case may be, the measures that must be taken to correct any deficiencies or irregularities observed, the time period for compliance by the violator, and any sanctions to which the violator may be liable pursuant to the applicable provisions.

Within the five working days following the expiry of the period granted to the violator in which to cure the deficiencies or irregularities observed, the violator shall give detailed notice in writing to the ordering authority of having complied with the measures ordered in the manner prescribed by the applicable order.

In the case of a second or subsequent inspection to verify compliance with a previous order or orders, where a lack of compliance with measures previously ordered is evident from the resulting official record, in addition to the sanctions arising from Article 171 of this Act, the competent authority shall impose a fine not exceeding the maximum limits set out in that provision.²¹⁷

In cases where the violator performs the corrective or urgent measures or cures the irregularities detected within the time period ordered by the Ministry, provided that the violator is not a repeat violator and none of the criteria set out in Article 170 of this Act obtains, the Ministry may revoke or amend the sanction or sanctions imposed.²¹⁸

In appropriate cases, the federal authority shall notify the Office of the Public Prosecutor of the occurrence of acts or omissions noted during the exercise of its powers that may constitute one or more offenses.²¹⁹

102. In regard to safety measures, LGEEPA Article 170, cited by the Submitters, establishes the measures to be taken in case of “imminent risk of ecological instability or of serious harm to or deterioration of natural resources, or in cases of contamination with dangerous consequences for ecosystems, their components, or public health,”²²⁰ and expressly states:

[T]he Ministry may, with due justification, order any of the following safety measures:

- I. The temporary partial or total shutdown of pollution sources and of facilities handling or storing specimens, products, or subproducts of species of wild flora or fauna, forest resources, or carrying on activities giving rise to the conditions to which the first paragraph of this article refers;
- II. The seizure of hazardous materials and wastes as well as specimens, products, or subproducts of wild flora or fauna species or their genetic material, forest resources, and also property, vehicles, tools, and instruments directly related to the conduct giving rise to the application of the safety measure, or

III. Neutralization or any similar measure to prevent hazardous materials or wastes from giving rise to the effects contemplated in the first paragraph of this article.

In addition, the Ministry may apply to the competent authority for the application of any safety measure or measures that may be prescribed by other provisions.²²¹

6.3 CPF Articles 415 paragraph I, 416 paragraph I, and 421: Criminal Code provisions

103. Due to the importance of the legal protection of the environment and its existence as a human right—forming the basis for the right to human life and health—criminal prosecution arises as an alternative means of deterring acts that cause harm to the environment and reinforcing respect for the environment.²²² The defense of the environment through criminal prosecution is considered the *ultima ratio*.²²³ That is, criminal prosecution should be society's last line of defense for protecting certain legal interests, once other less coercive methods of control are exhausted and its use is justified only where absolutely necessary to preserve the broader social good.²²⁴
104. Environmental protection thus has a criminal law component in the Mexican legal system, criminal liability being the outcome of the commission of an environmental offense, which is an unlawful, statutorily defined, culpable act or act in violation of legal precepts whose aim is to harmfully disrupt the environment.²²⁵
105. As regards the power to file a criminal complaint in the case of an environmental offense, this is vested in the federal environmental authority, Profepa, by LGEEPA Article 169, last paragraph.²²⁶
106. In this regard, CPF Article 415 paragraph I as in force prior to 6 February 2002 and cited in the Consolidated Submissions, provides that:

Anyone who does the following is liable to a prison term of three months to six years and one thousand to twenty thousand days' fine:

- I. engages in any activity with hazardous materials or wastes that causes or could cause harm to public health, natural resources, fauna, flora, or ecosystems without the authorization of the competent federal authority or in violation of any terms under which such activity may have been authorized....²²⁷

107. CPF Article 416 paragraph I, as in force prior to 6 February 2002 and cited in the Consolidated Submissions, provides as follows concerning soil and water contamination:

Anyone who does the following without any approval that may be applicable or in violation of the legal or regulatory provisions or Mexican official standards is liable to a prison term of three months to six years and one thousand to twenty thousand days' fine:

- I. Discharges, dumps, or allows to seep, or authorizes or orders the discharge, dumping, or seepage of, wastewater, chemical or biochemical liquids, refuse, or contaminants into soils, marine waters, rivers, basins, ponds, or other bodies of water or watercourses under federal jurisdiction that cause or may cause harm to public health, natural resources, flora, fauna, the quality of water in watersheds, or ecosystems....²²⁸

108. CPF Article 421 specifies that, without prejudice to the foregoing provisions, the judge may impose one or more of the following penalties:

- I. The taking of the measures necessary to restore the natural elements making up the affected ecosystems to the condition they were in before the offense took place;
- II. The suspension, modification, or demolition of any structures, works, or activities, as the case may be, that may have given rise to the environmental offense in question;
- III. The reintroduction of the natural elements, specimens or species of wild flora or fauna into the habitat from which they were removed, provided that their reintroduction does not pose a threat to ecological stability or impede the reproduction or migration of wild flora or fauna species; and
- IV. The return of the hazardous materials or wastes or specimens of threatened or endangered wildlife species to the country of origin, with adherence to the stipulations of international treaties and conventions to which Mexico is a party.

For the purposes to which this article refers, the judge shall request the issuance of the appropriate technical report from the competent federal body or from institutions of higher education or scientific investigation.²²⁹

109. In 1997, the PGR created the Office of the Special Attorney for Environmental Offenses (*Fiscalía Especial para Delitos Ambientales*) as the competent specialized unit in respect of conduct contemplated in Title XXV of the CPF.²³⁰ In accordance with the powers vested in the PGR, the Office of the Federal Public Prosecutor (*Ministerio Público de la Federación—MPF*) has jurisdiction over federal environmental offenses. Where Profepa is notified of acts or omission that may constitute environmental offenses, LGEEPA provides that Profepa shall file the corresponding complaint with the MPF; in addition, any private party may directly file a criminal complaint. Finally, the MPF may commission Profepa to prepare technical or expert reports further to the filing of complaints related to environmental offenses.²³¹

7. Background

110. This section provides contextual information on the history of the site in question, the background of activities conducted by BASF at the Facility and information related to its closure, as well as the civil and administrative litigation derived from.

7.1 Hacienda de Nuestra Señora de la Concepción “El Hospital”

111. The origin of Ex Hacienda de Nuestra Señora de la Concepción “El Hospital” (now, the premises making up the Facility and the Adjacent Lot) dates back to the sixteenth century. In 1581–82, Lorenzo Suárez de Mendoza, the fifth viceroy of New Spain, granted lands to the Hermanos de San Hipólito Congregation for the purpose of having the produce from these lands go to supporting the Santa Cruz de Oaxtepec hospital.²³² For this reason, the hacienda and locality were given the name “El Hospital.”²³³ In addition to being used to grow wheat, some of the land on the property was dedicated to the construction of a sugar mill that would operate for the next three centuries.²³⁴
112. The hacienda was owned by the Congregation for at least 200 years, although the exact date when it ceased to belong to the Congregation is unknown. In 1820, the Spanish courts abolished the hospital orders. However, the property of the hospitals remained in private hands. Thus, in 1831, Hacienda El Hospital belonged to the Michaus family; in 1887, to José Toriello Guerra and, in the late nineteenth century, Vicente Alonso Simón bequeathed it to his widow, Julia Pagaza. The modernization of the hacienda and its expansion onto the territory of the surrounding villages began in 1870.²³⁵
113. In the early twentieth century, the sugar mills of Morelos were highly productive and reputedly the most modern in Mexico, while the local peasants continued to lose their land.²³⁶ In the vicinity of Cuautla, the

Zapata family began raising livestock right when Hacienda El Hospital enclosed some of the good land.²³⁷ In 1910, the peasants of Anenecuilco, invoking the new Real Property Act (*Ley de Bienes Raíces*), claimed their fields, which encompassed a portion of the land occupied by Hacienda El Hospital.²³⁸ Emiliano Zapata, then the municipal president of Anenecuilco, along with 80 armed men, occupied the disputed land and gave out plots to the farmers of the village. He repeated this act in other regions experiencing similar problems. Zapata's initially local uprising, which focused merely on the taking of disputed land, gave rise to the Southern Revolution, which would play a central role in the progress of the Mexican Revolution.²³⁹

114. Ultimately, some 12,000 hectares of Hacienda El Hospital were divided up among the ejidos of Villa de Ayala, Anenecuilco, El Hospital, Moyotepec, and Cuautla.²⁴⁰ Following this land redistribution, Hacienda El Hospital's land area stood at 43,273.95 m².²⁴¹
115. In 1948, Roberto Abe Domínguez purchased from Esperanza Pinzón de Gutiérrez the central part of Ex Hacienda El Hospital, along with the machinery, furniture, utensils, tools, and implements found in it, which had belonged to an unrefined cane sugar and alcohol plant.²⁴² Roberto Abe Domínguez and his father, Manuel Abe Matzumara, established the "José María Morelos" sugar mill and, subsequently, an alcohol plant.²⁴³

7.2 The Facility operated by the Company BASF Mexicana, S.A. de C.V.

116. In the 1960s, the Abe family leased a part of Ex Hacienda to the company Pigmentos Mexicanos, S.A., owned by a foreign national surnamed Von Brentano.²⁴⁴ The part leased to Pigmentos Mexicanos was concentrated in the office area of the Facility (see Figure 1) for approximately five years.²⁴⁵

Figure 1. Ex Hacienda El Hospital, the Facility, and the access area



Note: The green boundary shows the Ex Hacienda El Hospital, while shading illustrates - brown: Facility; blue: Adjacent Lot (common area); gray: rest of Adjacent Lot.

117. In 1973, BASF Mexicana purchased the Pigmentos Mexicanos plant²⁴⁶ and leased the Facility from the Abe family for 24 years up to the closing of the Facility in 1997.²⁴⁷ Prior to the commencement of production, part of the Facility was used for inorganic pigment production “by at least two companies.”²⁴⁸
118. In 1968, BASF Mexicana began producing paint, apparently starting with the purchase of machinery from Pigmentos Mexicanos.²⁴⁹ The Secretariat conducted fact-finding for information about the methods used to prevent contamination²⁵⁰ or any environmental impacts stemming from production processes taking place prior to the arrival of BASF Mexicana, but no relevant information was identified. The scant information available indicates that Mr. Von Brentano, who was also a BASF Mexicana contractor,²⁵¹ was a pigment manufacturer in the Facility.²⁵² The lease between BASF Mexicana and the Facility’s owner states that the former would use the premises “with the machinery, equipment, and other industrial infrastructure currently existing on the premises.”²⁵³
119. According to publicly available information, BASF Mexicana is a Germany-based chemicals company involved in the worldwide production of chemicals, plastics, agricultural products, performance or specialty chemicals, and crude petroleum and natural gas. BASF was founded in 1865 and currently employs more than 100,000 people at 380 production facilities around the world.²⁵⁴
120. BASF Mexicana has a facility in Tultitlán (Mexico state) dedicated to the production of 22,000 tons of coatings for the automotive industry; another in Altamira with six production plants and a marine terminal that serves the adhesives, automotive, construction, leather, paper, plastic, and textile industries,²⁵⁵ and one in the Cuernavaca Industrial Park (*Centro Industrial del Valle de Cuernavaca–Civac*) in Jiutepec, Morelos.²⁵⁶
121. The lease agreement for the Facility took effect on 11 April 1973,²⁵⁷ and was renewed in 1976, 1978, 1981, 1983, 1988, and 1993.²⁵⁸ The leased area was 5,231.09 m². The rest of the property owned by the Abe family continued to be dedicated to agriculture.²⁵⁹
122. For 24 years, from 1973 to 26 March 1997, BASF Mexicana was engaged in the manufacturing of inorganic red and yellow pigments used in the production of paints, dyes, and plastic colorings, producing 2,000 ton/year. In the manufacturing of these pigments, the Company used as raw materials the chemicals lead oxide, sodium molybdate, and lead nitrate – the latter all considered hazardous due to their toxicity – as well as other chemicals. The pigments constituting the finished product contained lead chromate, lead sulfate, and lead molybdate.²⁶⁰ These compounds were considered hazardous materials at the time the Facility was shut down.²⁶¹
123. Additionally, in 1986–1993, herbicide manufacturing related activities took place at the Facility; total production was 1,839 tons, equivalent to 15–20% of the Facility’s total output. The reports consulted indicate that most of these herbicides “were organic compounds and did not contain any metals.” However, the active ingredient in some of them—e.g., Cobox, Kauritil, and Fertiquel-Combi—contained copper in quantities of 0.36–5.00%. All things considered, “only 88 tons of herbicides contained copper (only five percent of the total herbicide output and much less than one percent of the total production of the BASF Mexicana plant).”²⁶²

7.3 Environmental audit and shutdown of the Facility

124. On 31 August 1995, BASF Mexicana notified the owner of the Facility of its intent to terminate the lease signed in 1993 in advance of its expiry. BASF Mexicana formally returned the premises to its owner on 3 September 1997.²⁶³
125. In 1996, prior to the return of the Facility to its owner, BASF Mexicana subjected it to a voluntary environmental audit under the environmental laws of Mexico.²⁶⁴ The audit was carried out by Topografía, Estudios y Construcción, S.A. de C.V., for the Environmental Audits Office (*Subprocuraduría de Verificación Ambiental*) of Profepa, 11–29 November 1996.²⁶⁵ The audit identified multiple deficiencies in the Facility and in the operation thereof, such as a lack of preventive and corrective maintenance, fugitive emissions at various process stages, and process wastewater leaks.²⁶⁶

126. In addition, the audit identified activities possibly constituting instances of noncompliance with various requirements of Mexican environmental law. The auditor included recommendations in a plan of action consisting of the implementation of various preventive and corrective measures.²⁶⁷ However, BASF Mexicana discontinued discussions of this plan of action and opted not to sign a compliance agreement. It should be noted that the environmental audit, being a voluntary program, does not require the audited person or entity to sign a compliance agreement.²⁶⁸
127. On 4 March 1997, BASF Mexicana notified the Profepa office in the state of Morelos as follows:
- We hereby inform you that, pursuant to Articles 401 and 434 of the Federal Labor Act [*Ley Federal del Trabajo*], the Company has decided to permanently cease operations at its pigment plant in Ex Hacienda El Hospital, Municipality of Cuautla, Morelos.
- Consequently, the Plant will operate until March 26 of this year. Subsequent to that date, only personnel involved in the closing of the plant will remain on the site.²⁶⁹
128. On 24 April 1997, BASF Mexicana filed with the Profepa office in the state of Morelos a timelined plan of works and measures for the shutdown and dismantlement of the plant as well as for the management of hazardous waste, which it supplemented with additional information in June 1997.²⁷⁰
129. On 22 July 1997, the Profepa office in the state of Morelos ordered that an inspection visit be made to the Facility in order to verify compliance with the shutdown and dismantlement measures.²⁷¹ The enforcement measures discussed in sections 9, 10, and 11 of this factual record, along with the related administrative proceedings, arose from this inspection.
130. The Morelos Profepa office ordered and conducted an inspection visit to the Facility on 23 July 1997 for the purpose of verifying the shutdown and dismantlement measures.²⁷² In view of the omissions observed during the procedure, on 2 August 1997 Profepa initiated an administrative proceeding against BASF Mexicana further to the detection of “irregularities in the management and final disposal of hazardous waste as well as contamination of the Facility with hazardous materials such as chromium- and lead-based pigments” and, on 2 August 1997, ordered urgent corrective measures.²⁷³
131. Among the measures ordered by Profepa on 2 August 1997 were requirements for the Company to submit information relating to a timelined plan for dismantlement, cleanup, and restoration of the Facility; to implement a plant shutdown and waste generation log; to submit hazardous waste delivery, transportation, and receipt manifests; and, to perform soil and surface water characterization.²⁷⁴

7.4 Citizen complaints relating to the matter raised in the Consolidated Submissions

7.4.1 Citizen complaint of 1 October 1997

132. On 1 October 1997, Roberto Abe Domínguez filed a written complaint with Profepa, asserting “irresponsibility in the final disposal of hazardous waste generated by the Company”²⁷⁵ to which he attached, among other documents, notarized affidavits dated 18 August 1997,²⁷⁶ 22 August 1997,²⁷⁷ and 3 September 1997.²⁷⁸ This complaint attests to the physical condition of the Facility. In addition, Mr. Abe included documentation of sampling conducted on 22 August 1997 by the company Laboratorios ABC Química, Investigación y Análisis, S.A. de C.V., and the report of results indicating the presence of cadmium, chromium, lead, and mercury in soil samples taken from various areas of the Facility.²⁷⁹

133. The complainant asked the authority to perform “an assessment of the premises” and, should it be found to be contaminated, to order “the appropriate cleanup measures”; to perform “the studies ... necessary to determine contamination levels in Espíritu Santo creek”; to conduct an “analysis of the contamination caused ... to the village of El Hospital”; and to perform “the applicable health studies” on the former employees of the Facility.²⁸⁰
134. Profepa allowed the citizen complaint,²⁸¹ it was recorded under file no. 103/97, folio 043, and the complainant was so notified.²⁸²
135. In a document dated 11 February 1998, the complainant, in his capacity as owner of the Facility, requested the status of coadjutant in the administrative proceeding brought against BASF Mexicana.²⁸³ On 10 March 1998, the Profepa office in Morelos asked Roberto Abe Domínguez to assist the office with the administrative proceeding brought against BASF Mexicana and to provide any necessary access to the Facility.²⁸⁴
136. Further to the undertakings contained in the judicial settlement discussed in section 7.5 of this factual record, Roberto Abe Domínguez, by means of a document dated 26 October 1999, withdrew all the motions, applications, and claims he had filed as a complainant.²⁸⁵ Between the time he filed his complaint and the time he withdrew it, there were relevant occurrences at the Facility in connection with Profepa’s activities, which are discussed in section 10 of this factual record.

7.4.2 Citizen complaint of 10 December 1997

137. On 10 December 1997, a group of El Hospital residents jointly filed with Profepa a citizen complaint against BASF Mexicana, alleging that:

they dumped paint and water polluting substances into the Espíritu Santo river... they even dumped blue barrels marked “hazardous waste” in public areas of the village, next to the school and the sports fields, which gave off noxious odors that irritated the throat... they sent some trucks that were dumping yellow and red painted bricks ... there were about 70 trucks or vans dumping this debris, and all this allegedly had impacts on the health of animals, plantations, and workers at the Facility.²⁸⁶
138. On 22 January 1998, the complainants asked that Profepa “supervise, oversee, and give orders as to the manner in which the waste dumped in our village must be removed, also specifying final disposal and containment methods ... and request[ed] that we be given official attestation of these circumstances”; and informed it that BASF “sold various contaminated materials to people in the village, who used them to build fences, tables, doors, pipes, etc...”²⁸⁷ In support of their assertions, the complainants, in February of that year, submitted “24 ‘material exit passes’ issued by the Company BASF Mexicana, S.A. de C.V., to the various buyers of the contaminated waste material of which the Company was disposing.”²⁸⁸
139. On 10 February 1998, the Profepa office in Morelos reported on the processing status of the citizen complaint, noting that Profepa would proceed to inspect the Facility and that BASF Mexicana would collect materials deposited in El Hospital.²⁸⁹
140. In June 1998, the Industrial Inspection Branch (*Dirección General de Inspección Industrial*—DGII) of Profepa made an inspection visit to the Facility in order to verify compliance with the environmental provisions governing the generation, management, and final disposal of hazardous materials and waste and to investigate whether any offenses had been committed and assign the corresponding administrative liability. As part of this procedure, the Profepa inspectors took samples in the process area formerly occupied by BASF Mexicana, which were sent to the Profepa Central Laboratory and served to “substantiate the contamination of floors, walls, and roofs on the premises ... with chromium and lead waste.”²⁹⁰

141. Consequently, on 1 July 1998 the DGII ordered BASF Mexicana to produce the following, *inter alia*: a detailed inventory of hazardous waste generated during the operation and dismantlement of the Facility, and a timelined cleanup plan and a study to assess soil, subsoil, and water table contamination, for which purpose an outside expert would be retained. Additionally, Profepa ordered a temporary total shutdown of the Facility and brought an administrative proceeding against BASF Mexicana and the owner of the Facility—Roberto Abe Domínguez—for possible administrative violations.²⁹¹ Meanwhile, the Profepa officer in the state of Morelos, at the request of the DGII, ordered the suspension of the administrative proceeding he had instituted against the Company, in order for the DGII to consolidate both administrative proceedings in August 1998.²⁹²

7.4.3 Citizen complaints of 4 June 2001 and 25 October 2005

142. On 4 June 2001, Roberto Abe Domínguez filed another citizen complaint against BASF Mexicana regarding the alleged contamination of the Facility with the Complaints Branch (*Dirección General de Denuncias y Quejas*) of Profepa and with the Profepa office in Morelos.²⁹³
143. On 25 October 2005, the association México, Comunicación y Ambiente, A.C., filed a citizen complaint with Profepa against BASF, alleging inadequate disposal of hazardous waste in the community of Ex Hacienda El Hospital.²⁹⁴ Profepa processed the complaint and, on 6 December 2005, conducted an inspection visit to the area where an alleged benefit accruing to the complainant was substantiated.²⁹⁵ On 16 May 2006, the complainant in question withdrew the complaint because “the information and documentation that I obtained for the filing thereof proved erroneous, incomplete, and ultimately untruthful, and I therefore wish to establish that the assertions made against BASF Mexicana, S.A. de C.V. are incorrect.”²⁹⁶

7.5 Civil jurisdictional authorities which heard the matter raised in the Consolidated Submissions

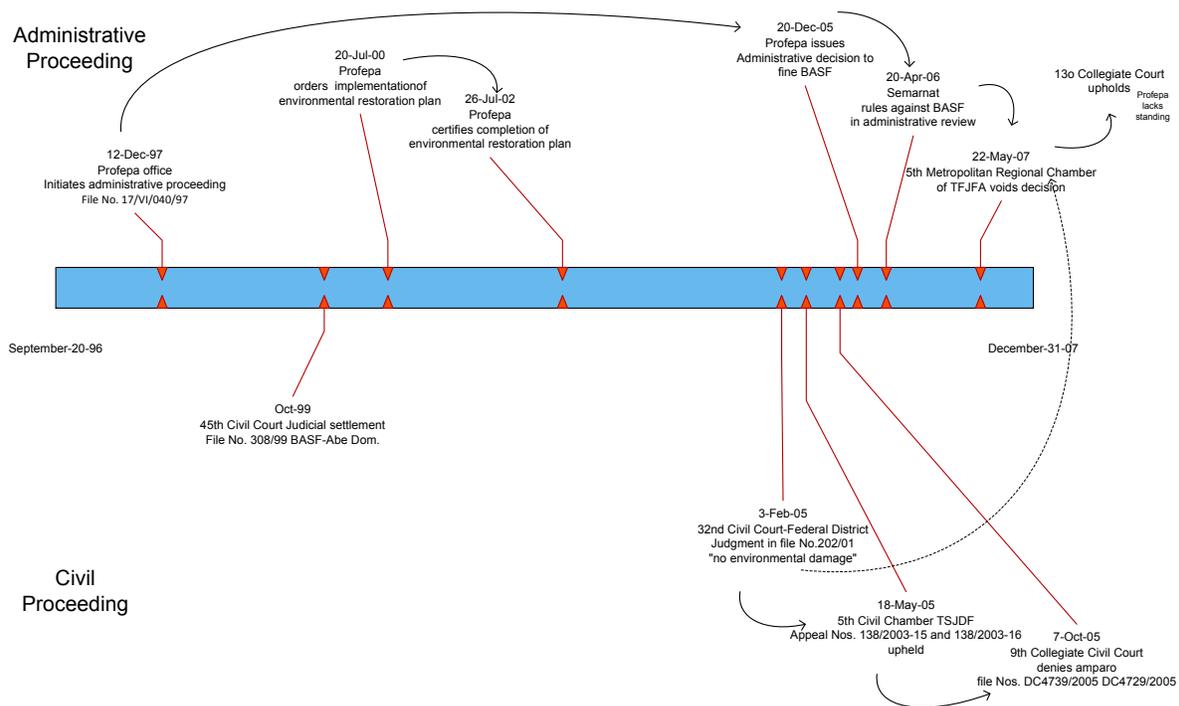
144. The following jurisdictional authorities heard the dispute between Roberto Abe Domínguez and BASF Mexicana:
- the Forty-Fifth Civil Court of the Federal District (the “45th Civil Court”);
 - the Thirty-Second Civil Court of the Federal District (the “32nd Civil Court”);
 - the Fifth Civil Chamber of the Superior Court of Justice of the Federal District (the “Fifth Civil Chamber of the TSJDF”); and
 - the Ninth Collegiate Civil Court of the First Circuit (the “Ninth Collegiate Court”).
145. **45th Civil Court.** Roberto Abe Domínguez filed an ordinary civil suit against BASF Mexicana under file no. 308/99, demanding various amounts from the Company and its shareholders as compensation for damage to the Facility during its operation, shutdown, and dismantlement.²⁹⁷ On 26 October 1999, the plaintiff and the respondent Company entered into a judicial settlement whereby they agreed to put an end to their dispute.²⁹⁸ By virtue of this settlement, the plaintiff was to desist from the following actions:²⁹⁹
- ordinary civil suit against BASF Mexicana in 45th Civil Court, file no. 308/99;
 - amparo action against Profepa in the Second District Court of the State of Mexico, file no. 825/98;
 - amparo action against Profepa, no. file 146/98; and
 - amparo action against Profepa, file no. 167/99.
146. In addition, the plaintiff, Roberto Abe Domínguez, granted forgiveness in relation to the matters at issue before the Public Prosecutor of Cuernavaca, Morelos in file no. SC/2a/4480/98 and before the Second Small Claims Court of Cuernavaca, Morelos.³⁰⁰ In addition, Mr. Abe Domínguez renounced his status as coadjutant in the administrative proceeding instituted by Profepa in files B0002/0750 and B0002/0775.

147. For its part, BASF Mexicana granted forgiveness in relation to the matters at issue before the Public Prosecutor of Cuernavaca, Morelos in file no. SC/3a/460/99-02 and before the Morelos Regional Chamber of the Superior Court of Justice in file 439/99-15. BASF Mexicana declared that it no longer had any legal interest in criminal investigation no. 195/FEDA/99 in relation to environmental offenses.
148. By virtue of the judicial settlement, BASF Mexicana undertook to pay Roberto Abe Domínguez 6,322,000 pesos in rent owed up to the date of the settlement and 200,000 pesos per month to lease the Facility during the period necessary to complete the environmental restoration. Counsel for the acting party would receive from BASF Mexicana 4 million pesos in fees and 223,454 euros for legal services in connection with the enforcement of this settlement during the restoration period.³⁰¹
149. In addition, BASF Mexicana undertook to carry out the environmental restoration plan pending Profepa approval of the plan, while Mr. Abe Domínguez undertook to provide access to his property for this purpose.³⁰²
150. **32nd Civil Court.** On 28 March 2001, Mr. Abe Domínguez filed suit against BASF Mexicana in file no. 202/01. He claimed US\$100 million in damages for soil contamination on the Adjacent Lot,³⁰³ since this issue allegedly was not covered by the judicial settlement.³⁰⁴ BASF Mexicana prevailed. The judge found that the plaintiff did not prove his claim. Thus, on 3 February 2005 the jurisdictional authority found as follows:
- and it is thus substantiated that, in the case at hand, there is no contamination on the property of the plaintiff, ROBERTO ABE DOMÍNGUEZ, nor any environmental harm or ecological instability; and further, that BASF MEXICANA, S.A. DE C.V., did in fact hold permits and/or approvals necessary to operate its plant and did adhere to the legal framework governing hazardous waste; in this regard, it is important to note that these reports are based on evidence submitted in large part by the plaintiff himself, further demonstrating the quality and objectivity of these reports.³⁰⁵
151. **Fifth Civil Chamber of the TSJDF.** In this case, Roberto Abe Domínguez challenged the aforementioned decision, arguing, *inter alia*, that the judge did not assess the evidence of environmental contamination on the Adjacent Lot. In this regard, the court ruled that Mr. Abe's arguments, while properly supported, did not substantiate that the contamination had extended throughout Ex Hacienda El Hospital,³⁰⁶ which comprises more than 38 hectares.³⁰⁷ Therefore, the court upheld the civil court judge's decision.³⁰⁸
152. **Ninth Collegiate Court.** Disagreeing with the Superior Court decision, Mr. Abe Domínguez filed an amparo action, which he also lost.³⁰⁹ With the decision handed down by the Ninth Collegiate Court on 11 August 2005, the trial judge (i.e., the judge of the 32nd Civil Court)³¹⁰ ordered Roberto Abe Domínguez to pay BASF Mexicana 66,564,300 pesos in court costs and other costs.³¹¹ During the enforcement of the decision, in 2009, ownership of Ex Hacienda El Hospital was awarded to BASF Mexicana.³¹²
153. On 14 October 2010, Ex Hacienda El Hospital was donated through a bank property trust whereby the settlor, BASF Mexicana, would transfer the property to the trustee, in this case the Public Charity (*Patrimonio de la Beneficencia Pública*), a division of the Ministry of Health, so that "without any involvement or responsibility on the part of the settlor" the former may carry out "socially sustainable projects."³¹³ The realization of the goal of the trust is subject to a condition which, as of the date of preparation of this factual record, has not been met: the liberation of the premises, which have been occupied by a group of El Hospital residents.³¹⁴
154. During the Secretariat's visit to Ex Hacienda El Hospital on 14 November 2012, it was noted that the facilities on this property are currently being used as a restaurant, an events garden, and "a day spa."³¹⁵ The site is operated by a group of persons unconnected with the Public Charity.³¹⁶ According to information obtained by the Secretariat, as of February 2013, BASF Mexicana was negotiating with the persons occupying Ex Hacienda El Hospital for their peaceable departure.³¹⁷

7.6 Administrative jurisdictional authorities which heard the matter raised in the Consolidated Submissions

155. Further to the administrative proceeding instituted by Profepa, on 20 December 2005 Profepa issued an administrative decision whereby BASF Mexicana was fined a total amount of 1,872,000 pesos.³¹⁸
156. BASF Mexicana filed an administrative review action (*recurso de revisión*) against this decision on 25 January 2006.³¹⁹ The Minister of Environment and Natural Resources resolved the action by changing the fine to a total of 748,880 pesos.³²⁰ In addition, the Minister ordered that BASF Mexicana be offered to set up a trust that the company would be put in charge of compliance with the corrective measures still pending completion.³²¹
157. Disagreeing with the decision, since it was not entirely favorable to the Company, on 29 June 2006 BASF Mexicana filed an action in nullity (*demanda de nulidad*) before the TFJFA.³²² The court ruled that the matter relating to contamination in Ex Hacienda El Hospital was *res judicata* because the 32nd Civil Court Judge in the Federal District had reached the conclusion, in a decision of 3 February 2005, that “there is no contamination on the premises ... nor any environmental harm or ecological instability; and further, that [the Company] did in fact hold the permits and/or approvals necessary to operate its plant and did adhere to the legal framework governing hazardous waste” (see paragraph 150).³²³ For this reason, the TFJFA declared null and void the administrative decisions issued by Profepa and Semarnat.³²⁴
158. Profepa filed a judicial review action in Thirteenth Collegiate Administrative Court against the TFJFA decision. The Court dismissed Profepa’s action due to lack of standing and, consequently, the TFJFA decision was upheld and the matter became *res judicata*, which means that a final binding legal judgment had been rendered and the matter could not be reopened.³²⁵

Figure 2. Administrative proceeding and civil litigation



8. Description of the Site in Question

159. The alleged soil contamination and the alleged exposure to residents of El Hospital vary depending on natural conditions of the site and the existing population. In order to provide context for the facts in this factual record, the Secretariat provides information of such conditions in this section. Likewise, this section provides a description of the process and main substances.

8.1 Natural environment

160. The locality of El Hospital is in the municipality of Cuautla in eastern Morelos state.³²⁶ The community of El Hospital is approximately 5 km to the west of Cuautla, Morelos, and some 70 km south of Mexico City.³²⁷ El Hospital can be reached from the city of Cuautla by the Cuautla-El Hospital highway.³²⁸ The study area is situated in the locality of El Hospital, west of the predominantly flat Cuautla valley. The foothills of the sierra arise here, among them the modest elevation of El Hospital hill.

161. The Sierra Chichinautzin descends towards southern Morelos state, leading to hilly land in the Cuautla valley that attains an altitude of 1,200 m above sea level. The most prominent elevations in the municipality of Cuautla are Calderón hill, west of the municipality, and El Hospital hill, which divides the Cuautla and Yautepec valleys.³²⁹

162. Apart from the Facility's industrial activities, the predominant land use is pasture (irrigated and seasonal) and forestry.³³⁰

Figure 3. Location of El Hospital in the Cuautla valley³³¹

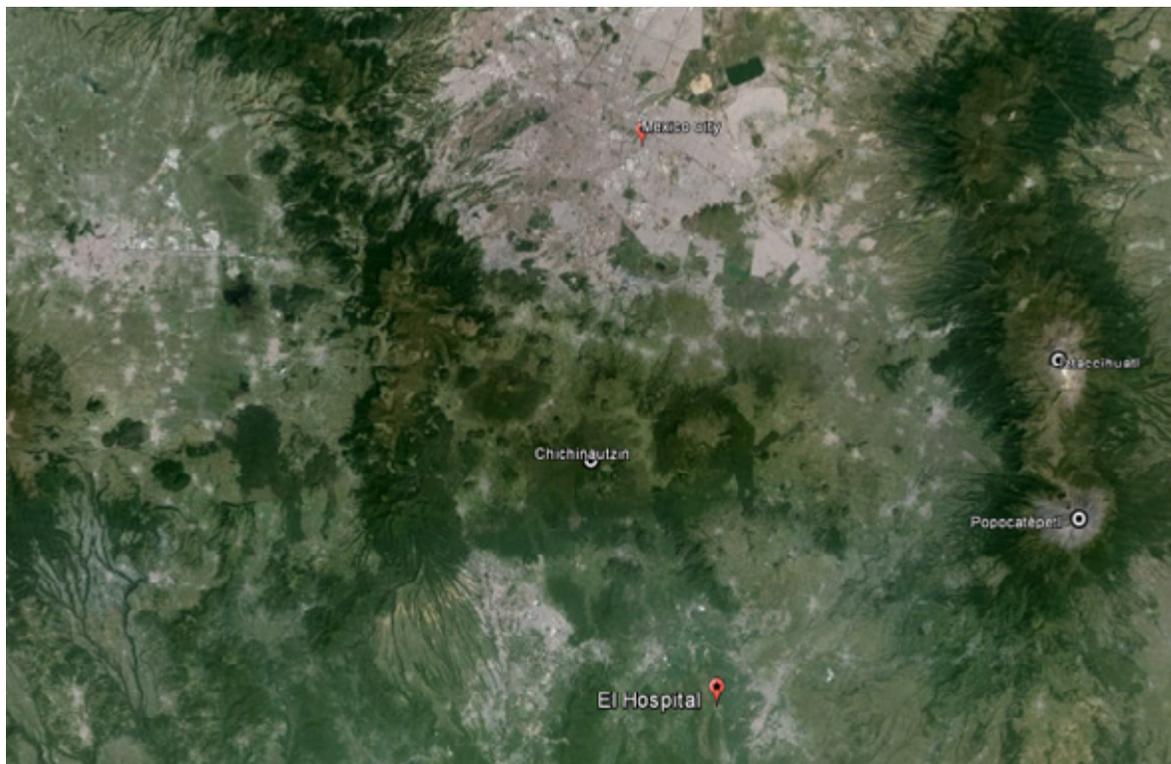


Figure 4. Subregions of hydrological region 18, Balsas³⁴⁰



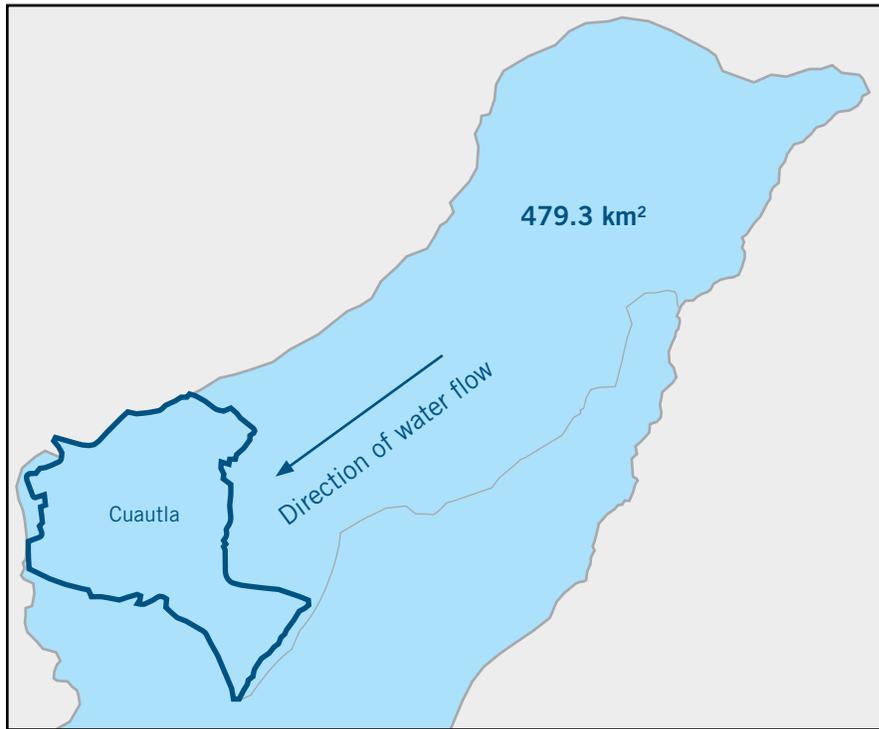
i Flora and fauna

163. Due to the land use changes that occurred since the colonial epoch, the natural vegetation “has been practically eliminated”;³³² the original vegetation was very probably thorn forest or tropical dry forest, tropical thorn forest, and tropical deciduous forest. Farmland dominates the landscape, with the principal crops being lemons, sugar cane, rice, and corn, including perennials, semi-perennials, and annuals.³³³
164. Due to the sparse vegetation, faunal diversity is limited and populations are low.³³⁴ Domestic species are present as a result of human activities.³³⁵ Notable are the presence of cattle and pigs, and also the El Potrero aquaculture facility northwest of the Facility, which produces tilapia.³³⁶ There are toads and frogs in the creeks and irrigation canals, while domestic yards harbor reptiles such as lizards, iguanas, and snakes. Foxes, opossums, and cacomistles (a relative of the raccoon) occur here and bats can be seen at night.³³⁷

ii Hydrology

165. El Hospital is located in the hydrological region 18, Balsas, subregion Medio Balsas. Hydrological region 18 is administered by the Balsas Watershed Body, which reports to Conagua.³³⁸ It comprises the hydrography of the Cuautla River, an intermediate subwatershed of the Amacuzac River, which in turn makes up one of the two main basins in hydrological region 18, Balsas.³³⁹
166. The municipality of Cuautla is in the Cuautla River subwatershed, whose drainage area is 1,117.9 km², while the water catchment area directly draining into the municipality of Cuautla accounts for 42% of the Cuautla River watershed drainage.³⁴¹ The municipality of Cuautla has a water catchment area of nearly 500 km² (see Figure 5). Some 88% of the rivers running through the municipality of Cuautla originate in northern Morelos state.³⁴²

Figure 5. Water catchment area in the Cuautla River watershed³⁴³



iii Geohydrology

167. El Hospital is found in an unconsolidated unit of material with high possibilities;³⁴⁴ that is, the area is composed of alluvial soil giving rise to an unconfined aquifer that is recharged from the southern flank of Popocatepetl and from the Yautepec and Cuautla rivers.³⁴⁵ The water is drawn from wells whose static level varies from 5 to 35 m depth through pipes 7.6–20.3 cm in diameter and the water is for domestic, recreational, and irrigation use.³⁴⁶ In addition, there are a number of shallow wells with static level ranging from 1 to 18 m; these are used for domestic purposes.³⁴⁷
168. The underground aquifers are unconfined.³⁴⁸ The springs near the Cuautla River are located in the center and north of the municipality and their water is derived from seepage from basaltic areas in the northern part of the watershed, which occurs due to the aquifer's proximity to the surface.³⁴⁹

iv Population

169. The municipality of Cuautla is the third most populous in the state of Morelos. The most highly populated divisions of Morelos are Cuernavaca, pop. 365,168; Jiutepec, pop. 196,953, and Cuautla, pop. 175,207.³⁵⁰ The city of Cuautla accounts for 88% of its municipal population.³⁵¹ The concentration of residents in that municipal seat increased in the 1980s from 26% to 92% of the total municipal population,³⁵² making Cuautla an “eminently urban” municipality.³⁵³
170. In 1995, El Hospital had a census population of 1,834 residents, including 225 children ages 5 and under and 390 children ages 6–14; approximately 40% of the population lacked piped potable water and sanitation and 16% of the population ages 15 and over did not know how to read or write.³⁵⁴ In 2010, the locality of El Hospital had a population of 2,053.³⁵⁵

8.2 Description of the process

171. Between 11 April 1973 and the date when BASF Mexicana notified Profepa that the Company was going out of business (26 March 1997),³⁵⁶ the Facility primarily housed the production of yellow and red lead chromate, sulfate, and molybdate pigments, with production of 2,000 tons/year.³⁵⁷
172. Lead chromate pigments are “insoluble ion complexes of the form $Pb(Cr, S, Mo)O_4$.”³⁵⁸ Depending on the quantity of molybdenum they contain, the pigments may be yellow, orange, or red.³⁵⁹ In order to improve their stability, dispersibility, acid- and climate-resistance, and longevity, other materials were mixed with the pigment before it was packed.³⁶⁰
173. During the precipitation phase, a solution of sodium dichromate and caustic soda was added to the precipitation tanks.³⁶¹ The mix was agitated to cause a reaction in a solution with lead nitrate and water.³⁶² At this stage, the reaction led to the formation of crystals, which were allowed to settle out and were then decanted.³⁶³ The water resulting from this process was sent to the wastewater treatment plant.³⁶⁴ The inclusion of sodium molybdate in the mixture served to produce orange or red pigments, whereas the yellow pigments were mixed with sodium sulfate to form insoluble precipitates of chrome yellow.³⁶⁵

Photo 1. Precipitation tanks³⁶⁶



174. Precipitates of yellow pigment were prepared using hot water as a reagent, and a boiler was used for this purpose, whereas the precipitation of red pigments was done with cold water, for which the Facility was equipped with an ice factory.³⁶⁷
175. The filtration phase consisted in pumping the pigment slurry through “filter presses,” which extracted the pigment until a concentration of 50% solids was reached.³⁶⁸

Photo 2. Filter press³⁶⁹



176. The pigment obtained was washed and the wash and filtration water was routed to the treatment plant.³⁷⁰

Photo 3. Wastewater treatment plant of the Facility³⁷¹



177. The pigment drying stage involved placing the pigment on trays that were sent to the tunnel dryer area, where the moisture was driven out of the pigment by direct heating.³⁷²

Photo 4. Dryer³⁷³



178. At the end of the drying stage, the pigment was sent to mills for grinding³⁷⁴ to produce a very fine dust, and this product was packed for loading and distribution.³⁷⁵ The production process is diagrammed below:

Figure 6. Pigment production process³⁷⁶



Note: The green boundary shows the Ex Hacienda El Hospital, while shading illustrates.- brown: Facility; blue: Adjacent Lot (common area); gray: rest of Adjacent Lot.

8.3 Substances used in the process

179. Among the substances used in the pigment production process were lead oxide, lead nitrate, sodium molybdate, sodium silicate, sodium sulfate, ammonium persulfate, and aluminum sulfate.³⁷⁷ Appendix 11 lists the substances used in the production process.³⁷⁸
180. In regard to hazardous waste, the pigment manufacturing process yielded bags filled with substances used in the process, such as antimony trioxide containing impurities of arsenic, sodium fluoride, sodium molybdate, sodium dichromate, and lead molybdate and chromate; boards impregnated with lead molybdate and chromate pigments; 200-l metal drums containing lead molybdate and chromate pigment waste; plastic jugs that contained hydrochloric and phosphoric acids, and empty bags containing traces of cobalt and selenium.³⁷⁹ Profepa ruled that “all the wastes resulting from the production of yellow and red pigments are hazardous pursuant to Mexican Official Standard NOM-052-ECOL-1993.”³⁸⁰ While Appendix 11 lists the types of hazardous waste generated during the operation of the Facility,³⁸¹ there is no available information on the volume of waste generated, since the Company did not keep a monthly generation log.³⁸²
181. Studies prepared for BASF Mexicana by experts, underscore that “... the raw materials and pigments produced by BASF Mexicana at the former plant contained lead (Pb^{+2}), hexavalent chromium (Cr^{+6}), trivalent chromium (Cr^{+3}), and molybdenum (Mo^{+6})” and that “the main inorganic materials derived from pigment production by BASF Mexicana are bivalent lead, trivalent chromium, and hexavalent chromium.”³⁸³ In the opinion of Dames & Moore, and following a conceptual model based upon Risk-Based Corrective Actions guidelines,³⁸⁴ the results of the characterization study produced by Grupo van Ruymbeke “indicate the immobility of the metals in the solid soil matrix, such that one may deduce the improbability of their being transported towards water.”³⁸⁵ In the expert’s opinion, this situation is confirmed by the fact that none of the groundwater samples exhibits the presence of metals in concentrations exceeding the Conagua reference values.³⁸⁶ According to the model used by the expert, the metals “would be found primarily near the surface of the soil.”³⁸⁷ The study found that the wastes “might be found to have been buried, given the allegations of waste burial made by certain persons in the community.”³⁸⁸
182. In regard to human health effects, Table 1 presents relevant information based on the soil restoration criteria adopted in 1999:

Table 1. Human health effects of toxic inorganic compounds (heavy metals) and other compounds³⁸⁹

Compound	Concentration at which a health risk arises		Reference dose* mg/kg/day		Human health effects	
	Residential soil mg/kg	Industrial soil mg/kg	Oral (RfD)	Inhalation (RfDi)	Effect**	Toxicity
Arsenic	0.43	3.80	0.0003	-	C	Toxic above 21 mg/l and lethal at 130 mg; damages skin and causes circulatory system problems
Barium	5,500	140,000	0.070	0.00014	N	Toxic above 1.8 mg/l and lethal at 550 mg; raises blood pressure
Cadmium	39	1,000	0.0005	0.00006	N	Toxic above 15 mg/l and lethal at 9 g; damages kidneys
Chromium	-	-	-	-	-	Toxic above 1.4 mg/l; damages liver, kidneys, and respiratory organs and causes hemorrhagic effects, dermatitis, and ulceration; prolonged exposure causes allergic dermatitis
Chromium III	120,000	3,100,000	1.5	-	N	Chromium VI is carcinogenic.
Chromium VI	230	6,100	0.003	0.00003	N	
Mercury	-	-	-	0.00008	-	Damages kidneys and causes renal and neurological disturbance
Mercuric chloride	23	610	0.0003	-	N	
Methyl mercury	7.8	200	0.0001	-	N	
Nickel	1,600	41,000	0.0020	-	N	Changes in organ weight Dermatitis of the hands Carcinogenic
Total lead	-	-	-	-	N	Physical and mental distress in children; kidney problems and high blood pressure in adults Neurodevelopmental, neurodegenerative, cardiovascular, renal and reproductive effects, with infants and children being the most susceptible to the neurodevelopmental effects of lead exposure
Organic lead	0.0078	0.20	0.0000001	-	N	
Selenium	390	10,000	0.050	-	N	Hair and nail loss Liver dysfunction
Zinc	23,000	610,000	0.300	-	N	Not reported
Acrylamide	0.14	D1.30	0.0002	-	C	Neurotoxic effects, skeletal muscle atrophy; Probable carcinogen in animals
Acrylonitrile	1.20	11	0.001	0.00057	C	
Cyanide	1,600	41,000	0.020	-	N	

* Based on: US-EPA, Region III Risk-based Concentrations, 1999.

** N: non-carcinogenic; C: Carcinogenic. RfD: oral reference dose; RfDi: inhalation reference dose. The symbol “-” means that concentrations have not been defined or that reference doses are not established in the source document.

9. Studies Produced in Relation to the Matter Raised in the Consolidated Submissions

183. In the course of the restoration work, risk and characterization studies were produced. In addition, expert reports were issued with a view to assigning any criminal liability that might ensue from the occurrences in Ex Hacienda El Hospital and the surrounding community. In addition to Profepa and the Ministry of Health, the following private environmental service companies were involved in carrying out the studies: Topografía, Estudios y Construcción, S.A. de C.V.; Residuos Industriales Multiquim, S.A. de C.V. (Rimsa); Grupo van Ruymbeke; Dames & Moore de Mexico, S. de R.L. de C.V. (Dames & Moore); Quantitative Decisions, and Environmental Geophysics Associates. The following is a synopsis of the studies produced in relation to the matter raised in the Consolidated Submissions, from which information was obtained for the preparation of this factual record:

Table 2. Studies produced in relation to the matter raised in the Consolidated Submissions

Name	Author	Date
Environmental audit of BASF Mexicana, S.A. de C.V., Cuautla, Morelos	Topografía, Estudios y Construcción, S.A. de C.V.	April 1997
Geophysical-hydrogeological study of Ex Hacienda El Hospital	Rimsa and Grupo van Ruymbeke	November 1998
Water characterization report	Rimsa and Grupo van Ruymbeke	December 1999
Expert report for criminal investigation 6243/FEDA/98	Profepa	3 March 1999
Expert report for criminal investigation 6243/FEDA/98	Profepa	10 August 2001
Assessment of exposure in a population living near a pigment factory in 2000	Environmental Health Branch of the Ministry of Health	No date
Assessment of environmental risk associated with the presence of copper	Grupo van Ruymbeke	July 2001
Geophysical study of El Hospital Village, Morelos, Mexico	Environmental Geophysics Associates	2 June 2002
Risk plan based on soil sampling	Quantitative Decisions	6 June 2002
Risk study	Dames & Moore	27 June 2002
Report on final cleanup of drainage systems and environs	Grupo van Ruymbeke	June 2009

9.1 Environmental audit of April 1997

184. From 11 to 29 November 1997, the company Topografía, Estudios y Construcción, S.A. de C.V., conducted an environmental audit of the Facility when it was about to give notice of the shutdown of the plant and the cessation of operations in El Hospital.³⁹⁰
185. The audit report came within the context of the Clean Industry Certification process implemented by Profepa and represents the intermediate stage prior to the Plan of Action and the signing of a compliance agreement.³⁹¹
186. The audit report found that in regard to air pollution, most of the equipment³⁹² exhibited leaks that caused fugitive emissions of lead oxide in the unloading,³⁹³ pre-milling,³⁹⁴ mill loading and unloading,³⁹⁵ mixing,³⁹⁶ drying,³⁹⁷ dust collecting,³⁹⁸ and finished product weighing and packing areas.³⁹⁹ In addition, a stack belonging to the dust extraction system, one that emitted dust into the environment without a sampling platform, was detected.⁴⁰⁰

187. In regard to hazardous waste, the chromium and lead molybdate waste storage area lacked access control⁴⁰¹ and signage.⁴⁰² In regard to storage of waste oil, waste dilute caustic soda, used diesel, and oil-soaked rags, there was no specific area designated for this purpose.⁴⁰³ Pigment-impregnated boards were found stored in direct contact with the natural soil.⁴⁰⁴ Noteworthy was the finding of empty jugs that had contained hydrochloric acid and lead nitrate,⁴⁰⁵ as well as 200-liter metal drums that had contained pigment,⁴⁰⁶ with no signage or barriers, or simply left out in the open. The audit reported the lack of separation between solid waste and hazardous waste as well as the lack of a monthly generation log.⁴⁰⁷
188. In regard to soil contamination, the Facility is almost entirely covered by 10-cm-thick reinforced concrete floors whose strength is in the range of 100–200.5 kg/cm²;⁴⁰⁸ however, due to the repeated expansion and alteration of the Facility,⁴⁰⁹ the floors were cracked, particularly the one located between the filter presses and the wastewater treatment plant.⁴¹⁰ Lead and chromium contamination was detected in the jet stream area and it was documented that the floors had routinely been pressure-washed, and that this water had run along the edge of the chapel where it filtered directly into the soil.⁴¹¹ In this area, the results obtained at a depth of 0.60 m were 15.60 mg/kg for lead and 23.80 mg/kg for chromium.⁴¹²
189. The wastewater treatment system was deficient,⁴¹³ exhibiting leaks of pigment sediment and untreated wastewater.⁴¹⁴ Chromium was detected in the treatment plant manhole⁴¹⁵ and in the effluent from the restrooms area due to discharges from the laboratory and the washdown area (because of pigment adhering to employees' bodies), and in the clothes washing area (for the same reason) as well as in the washbasin area (pigment adhering to employees' hands) and the hallways of the Facility.⁴¹⁶

9.2 Studies of contamination in soil, subsoil, walls, and groundwater at the Facility (1998–99)

190. On 3 September 1998, Profepa issued a decision approving the performance of a characterization study, which took place in 1998–99.⁴¹⁷ The Secretariat obtained copies of two studies—of soil and water—conducted at the Facility, which are described below. The studies were submitted in writing to Profepa on 30 November 1999 and 25 January 2000.⁴¹⁸

9.2.1 Geophysical-hydrogeological study of Ex Hacienda El Hospital

191. The study produced by Residuos Industriales Multiquim (Rimsa) and Grupo van Ruymbeke, was submitted to BASF Mexicana on 30 November 1998, and its purpose was to report on the hydrogeological processes at play in the study area and to determine the likelihood of contamination at the Facility.⁴¹⁹ Electrical soundings were performed in order to determine the hydrogeological processes operating in the region.⁴²⁰ The study results served to define sites for the installation of environmental monitoring wells and to elucidate the geophysical-hydrological characteristics of the terrain.⁴²¹

9.2.2 Water characterization report

192. The purpose of the December 1999 characterization study commissioned by BASF Mexicana from Rimsa and Grupo van Ruymbeke was to obtain the data necessary to submit a restoration plan and respond to Profepa's sampling and data analysis requirements.⁴²² For the purposes of the study, the type and concentration of contaminants in the water and sediments were determined.⁴²³ The study states that with reference to the typical water use in the vicinity of the Facility, the irrigation water quality criteria published in the Federal Duties Act (*Ley Federal de Derechos*) were used for the characterization of the site.⁴²⁴
193. The study states that there are deep wells (approximately 100 m) and shallow wells (*norias*, 8–10 m) in the area.⁴²⁵ The exploration results indicate the existence of a "single aquifer system, differentiated upstream by the presence of basaltic rock."⁴²⁶ In the Tres de Mayo and Hospital wells near the Facility, there are fine-grained sandy materials with specific flow rates of 0.4–0.7 liters per meter of drawdown.⁴²⁷

194. The study comprised the installation of groundwater observation wells inside and outside the Facility,⁴²⁸ and included an analysis of heavy metals in the arches, mixing and loading, precipitation, and raw materials receiving areas and outside the Facility.⁴²⁹ The results report states that the chromium criteria set out in the Federal Duties Act were exceeded in the raw materials receiving area⁴³⁰ and that “high concentrations of hexavalent chromium were recorded” in one of the observation wells located in the raw materials receiving area.⁴³¹ Concerning sediments in the Espíritu Santo creek, concentrations of heavy metals in excess of the reference values set out in the Federal Duties Act were not recorded.⁴³² In view of these results, the consultant found that, in regard to groundwater, “the plume of contamination has yet to spread,” since the well nearest the Facility, located in the direction of water flow, is 35 m from the building and “the presence of water pollutants was not recorded.”⁴³³
195. The study concludes that since “the area where the groundwater shows contaminant concentrations in excess of the reference criterion is limited,”⁴³⁴ it is recommended that soils in the raw materials area be excavated and removed, that the water be routed to a treatment system, and that the treatment system discharge be sampled, among other measures.⁴³⁵

9.3 Expert report of 3 March 1999

196. On 3 March 1999, the DGII issued a technical report produced by a professional reporting to the Industrial Technical Assistance Branch (*Dirección General de Asistencia Técnica Industrial*) of Profepa.⁴³⁶ A summary of the report in question was obtained by the Secretariat through the Infomex access to public governmental information system.⁴³⁷ The report in question was provided by the DGII to the MPF, which was in charge of criminal investigation 6244/FEDA/98 concerning the alleged commission of environmental offenses, particularly in connection with the disposal of materials and wastes deriving from dismantlement of the Facility.⁴³⁸
197. The report states that on 27 November 1997, Profepa⁴³⁹ conducted an inspection visit of the Facility during which samples were taken of debris from the demolition of concrete bases and floors, ice storage silos, and the drying mill.⁴⁴⁰ It states that the analysis ascertained that the debris was not hazardous waste for the purposes of NOM-052,⁴⁴¹ and provides an enumeration of official records drawn up for four lots in El Hospital.⁴⁴²
198. On 2 July 1998, the Profepa Laboratories Branch (*Dirección General de Laboratorios*) submitted its report of sampling carried out on 23 June 1998⁴⁴³ (17-006-0001/98-D), which contains the following results:

Table 3. Results of sampling carried out 23 June 1998⁴⁴⁴

Sample no.	Sample type	Results	
		Hexavalent chromium	Lead
M-E762	Mud sample	30.06 mg/l	84.36 mg/l
M-1A	Solid sample	0.14 mg/l	7.88 mg/l
M-2A	Solid sample	<0.05 mg/l	31.53 mg/l
M-3A	Dust sample	0.08 mg/l	13.02 mg/l
M-4A*	Solid sample opposite the lot owned by Mario Ávila Ocampo	0.10 mg/l	1643.12 mg/l
M-T.S.	Labeled liquid sample	2.36 mg/l	9.73 mg/l

* All samples were from Ex Hacienda de la Concepción or El Hospital with the exception of sample M-4A, which was taken from the property of an El Hospital resident.

199. The report summarizes the measures taken on 28 July 1998 to remove and provide final dispose for debris.⁴⁴⁵ It notes that compound samples were taken of mounds of scrap located in a warehouse prepared for this purpose the same day and which results are summarized below.⁴⁴⁶

Table 4. Results of sampling carried out on 28 July 1998⁴⁴⁷

Sample no.	Property	Results	
		Hexavalent chromium (Cr(VI))	Lead (Pb)
M-P1	Justina Escamilla García	0.45 mg/l	<0.5 mg/l
M-P2	Simón García Alarcón	0.50 mg/l	<0.5 mg/l
M-P3	Próculo García Alarcón	<0.05 mg/l	1.39 mg/l
M-B.C.	Warehouse rented by BASF	1.37 mg/l	<0.5 mg/l

200. The document specifies that on 17 September 1998 an auditing visit was made to supervise the removal of debris from the property of residents of El Hospital. Sampling was performed as well, with results as given below.

Table 5. Results of sampling performed on 17 September 1998⁴⁴⁸

Sample no.	Property	Results	
		Hexavalent chromium (Cr(VI))	Lead (Pb)
Sample 1	Not specified	0.13 mg/l	<0.05 mg/l
Sample 1 <i>Bis</i>	Not specified	0.18 mg/l	<0.5 mg/l
Sample 2	Not specified	<0.05 mg/l	<0.6 mg/l
Sample 4	Not specified	<0.5 mg/l	<0.5 mg/l
Sample P-01	Justina Escamilla García	<0.5 mg/l	<0.5 mg/l
Sample P-02	Simón García Alarcón	<0.5 mg/l	<0.5 mg/l
Sample 3A	Not specified	0.38 mg/l	<0.05 mg/l
Sample 3B	Not specified	0.45 mg/l	<0.5 mg/l
Sample 5A	Not specified	0.10 mg/l	<0.5 mg/l
Sample 5B	Not specified	0.15 mg/l	<0.5 mg/l
Sample 5C	Not specified	0.61 mg/l	<0.5 mg/l
Sample P-03-01	Próculo García Alarcón	0.55 mg/l	<0.5 mg/l
Sample P-03-02	Próculo García Alarcón	0.05 mg/l	<0.5 mg/l
Old sample 1	Not specified	1.67 mg/l	0.48 mg/l
Old sample 2	Not specified	1.09 mg/l	<0.5 mg/l
Sample 3	Not specified	1.44 mg/l	<0.5 mg/l
Old sample 4	Not specified	0.82 mg/l	<0.5 mg/l
Old sample 5	Not specified	0.06 mg/l	<0.5 mg/l

Note: There is no explanation in the expert report for the discrepancy between detection levels for lead and hexavalent chromium, as sometimes the value reads <0.05 mg/l and others <0.5 mg/l or <0.6 mg/l.

201. On 17 November 1998, the company Intertek Testing Services submitted the sampling results, although the sampling date is not specified (see Table 6).

Table 6. Analytical results of 17 November 1998

Sample no.	Results	
	Hexavalent chromium (Cr(VI))	Lead (Pb)
Old sample 1	0.88 mg/l	2.53 mg/l
Old sample 2	<0.1 mg/l	1.03 mg/l
Old sample 3	0.74 mg/l	1.44 mg/l
Old sample 4	0.80 mg/l	0.98 mg/l
Old sample 5	<0.1 mg/l	<0.77 mg/l
Sample 1	0.11 mg/l	0.41 mg/l
Sample 1 Bis	0.10 mg/l	0.33 mg/l
Sample B2	<0.1 mg/l	0.61 mg/l
Sample 3A	0.28 mg/l	0.51 mg/l
Sample 3B	0.24 mg/l	0.33 mg/l
Sample 4	0.13 mg/l	1.85 mg/l
Sample 5A	0.15 mg/l	0.19 mg/l
Sample 5B	0.32 mg/l	0.27 mg/l
Sample 5C	0.60 mg/l	0.38 mg/l

Note: There is no explanation in the expert report for the discrepancy between detection levels for lead and hexavalent chromium, as sometimes the value reads <0.05 mg/l and others <0.5 mg/l or <0.6 mg/l.

202. In addition, the report notes the result of a sample obtained from the property of a resident, labeled as M-4A, which was found to contain a lead concentration of 1,643.12 mg/l, which qualifies the result as hazardous waste under NOM-052.⁴⁴⁹ The report states that, for the purposes of determining hazardousness, samples were taken of debris from the same property, which had been stored in a warehouse. The results are summarized in Table 7.

Table 7. Results of sampling performed in warehouse on 17 September 1998⁴⁵⁰

Sample no.	Results		NOM-052	
	Hexavalent chromium (Cr(VI))	Lead (Pb)	Hexavalent chromium (Cr(VI))	Lead (Pb)
Sample 5A	0.10 mg/l	<0.5 mg/l		
Sample 5B	0.15 mg/l	<0.5 mg/l	5 mg/l	5 mg/l
Sample 5C	0.61 mg/l	<0.5 mg/l		

203. The report issued by Profepa concluded that there was no harm to the ecosystem nor to public health, nor any impact on the environment caused by the materials and debris deriving from the dismantlement and dumped on six lots owned by residents of El Hospital.⁴⁵¹ In this regard, with respect to sampling conducted in lots where debris from dismantling of the Facility was located, the expert report conclusions stated that “only one of the reported results was found not to meet the standard [i.e., NOM-052], with a concentration of 1643.12 mg/l of lead from a sample labeled as M-4A,” taken from the property of a resident of El Hospital.⁴⁵² In order to clarify the results, Profepa ordered the analysis of additional compound samples taken from mounds stored in a warehouse.⁴⁵³
204. The expert report is summarized in section 12.3 of this factual record, which presents information concerning the enforcement of CPF provisions.

9.4 Expert report of 10 August 2001

205. On 10 August 2001, two inspectors reporting to the Pollution Sources Inspection Branch (*Dirección General de Inspección de Fuentes de Contaminación*) issued a report in response to a request from the director of Desk III-FEDA of the MPF.⁴⁵⁴ The expert report would be used by the MPF to pursue criminal investigation 6243/FEDA/98 with a view to determining whether the activities of BASF Mexicana caused or could have caused “harms to natural resources, flora, fauna, or ecosystems” and whether said impact took place between 16 December 1996 and 30 April 1997.⁴⁵⁵ The report contains information on the background of BASF Mexicana,⁴⁵⁶ the raw materials used in the production process,⁴⁵⁷ the areas occupied by the Company,⁴⁵⁸ the pigment manufacturing process,⁴⁵⁹ the sources of air pollution,⁴⁶⁰ the hazardous wastes generated by the Company,⁴⁶¹ and the deficiencies detected by the environmental audit.⁴⁶² In addition, the report takes note of the study produced by the company Rimsa with a view to ascertaining the level of contamination at the Facility.⁴⁶³
206. The expert report issued in August 2001 states that the following were detected at the Facility: lead contamination levels of up to 290,000 mg/kg and chromium contamination levels of up to 39,000 mg/kg, both in the wastewater treatment plant area; hexavalent chromium contamination levels of up to 3,600 mg/kg in the raw materials warehouse; molybdenum contamination levels of up to 470 mg/kg in the wastewater treatment plant area; cadmium contamination levels of up to 76 mg/kg in the wastewater treatment plant area, and copper contamination levels of up to 1,900 mg/kg in the raw materials receiving area.⁴⁶⁴
207. In addition, the walls of the Facility were found to contain “high lead concentrations up to 23,000, 19,000, and 18,000 mg/kg at arch III, where the drum emptying and filling area was located, up to 15,000 mg/kg at arch XXII, up to 14,000 mg/kg at arch XXVI.”⁴⁶⁵ The expert report notes the detection of “high concentrations of chromium up to 18,000 mg/kg in the raw materials warehouse, molybdenum up to 810 mg/kg at arch XXII, and hexavalent chromium up to 9,200 mg/kg in the raw materials warehouse area.”⁴⁶⁶ The report notes that “approximately 3,656 m² of the 5,231 m² formerly occupied by the Company at the [Facility] was found to be contaminated with heavy metals.”⁴⁶⁷
208. Based on these facts, Profepa ordered the removal of 6,570 tons of contaminated soil, floors, and walls.⁴⁶⁸ The report states that, at the time it was written, there were still areas of the Facility exhibiting high concentrations of contaminants, and that the cleanup operations would thus continue until completion.⁴⁶⁹ The report reached the following conclusions relevant to this factual record:⁴⁷⁰
- i. The products manufactured and the wastes generated by the Company contained lead, chromium, molybdenum, zinc, and barium, which are by definition hazardous under NOM-052.
 - ii. The deficiencies detected by the environmental audit of BASF Mexicana included leaks, spills, and fugitive emissions of particles of both raw materials and intermediate and finished products, all of which contained the aforementioned heavy metals. These leaks, spills, and emissions were deposited on floors and ran along and through the cracked floors of the Facility. In addition,

- leaks from most of the equipment were documented, this being the reason why the walls (and in some cases, the roof) of the Facility were found to be impregnated with pigments.
- iii. Soil, subsoil, and groundwater characterization at the Facility revealed the presence of the aforementioned heavy metals, which had been generated while the Facility was operating.
 - iv. The report states that in some cases “the soils were so contaminated that they took on the characteristics of hazardous waste due to their toxicity”;⁴⁷¹ similarly, “the piles or mounds composed of soil mixed with scraps of floor and wall building materials ... were so contaminated that they were classified as hazardous waste.”⁴⁷²

9.5 Assessment of exposure in a population living near a pigment factory

209. The Ministry of Health, acting by its Environmental Health Branch (*Dirección General de Salud Ambiental*), conducted an assessment of El Hospital’s exposure to the risks posed by the Facility.⁴⁷³ While the study states that it was conducted subsequent to the shutdown of the Facility, the document is not dated. It is presumed nonetheless to have been produced around the year 2000, since it contains information on that year.⁴⁷⁴
210. The objective of the study was to determine blood lead levels in the susceptible population of El Hospital and to establish a lead exposure model for the population, particularly children under the age of 14.⁴⁷⁵ A questionnaire administered to 20% of the households in El Hospital included questions relating to the health of the residents in general, the characteristics of their dwellings, and their perception of air quality.⁴⁷⁶ In addition, there was biological monitoring of 250 children in El Hospital and environmental monitoring of the area, with sampling of soil, dust, water, ceramics, food, and toys.⁴⁷⁷ Table 8 summarizes the information concerning the number of samples taken.

Table 8. Sampling for environmental monitoring⁴⁷⁸

Medium	Number of samples	Location of samples
Soil	116	Two samples from the least trafficked area of each selected house
Dust	48	Taken from the dust in the minor’s bedroom
Water	80	Taken from the direct water intake of the house or from containers not made of glazed ceramic
Ceramic	43	Taken from ceramic containers used to store water
Food	40	Taken from food stored in glazed ceramic
Toys	41	No information available

211. The Submitters assert that residents of El Hospital were not aware of the hazardousness of materials that they obtained from BASF Mexicana during dismantling of the Facility.⁴⁷⁹ According to the available information, a survey conducted by the Ministry of Health in 2000 shows that 62% of the population of El Hospital do not know what lead is; one of every two residents does not know whether lead is found naturally in the environment, and 47% does not know what it is used for. Notably, 9 of every 10 residents believe that lead can affect their health, 74% consider it harmful, and 38% think it affects the blood.⁴⁸⁰ In addition, 39% think that lead is found in paint,⁴⁸¹ while 95% of those surveyed want more information about lead poisoning.⁴⁸² The document consulted by the Secretariat contains no conclusions.
212. As regards biological monitoring, Tables 9-11 summarize the results of the study. The applicable action item in Official Mexican Standard NOM-199-SSA1-2000⁴⁸³ is included in Table 10 for reference purposes.

Table 9. Blood lead levels (µg/dl) in children in EI Hospital

n	mean (µg/dl)	Standard deviation (µg/dl)	Minimum (µg/dl)	Maximum (µg/dl)
250	9.1	5.2	1.4	43.7

n = number of samples

Table 10. Blood lead levels in children in EI Hospital, by range

Range	n	Percent (%)	NOM-199-SSA1-2000
< 10 µg/dl	177	71	<ul style="list-style-type: none"> No specific action is established.
11-14 µg/dl	50	20	<ul style="list-style-type: none"> Repeat the lead testing with blood drawn from veins at least every three months and prepare a clinical history underscoring the environmental factors. Notify the sanitary authority. Inform the family about the exposure to environmental lead; promote good health, food and sanitary habits. Conduct a follow-up to the case.
15-24 µg/dl	20	8	<ul style="list-style-type: none"> Repeat the lead testing with blood drawn from veins at least every three months after the first result and until the lead level in blood is <10 mg/dl and prepare a clinical history underscoring the environmental factors. Develop a complete medical assessment in order to determine the type of attention. Prescribe dietary supplement: iron, calcium and others based upon the complete medical assessment. Determine lead levels in blood of other persons living in the same house, aged 15 years and less, pregnant women and lactating women. The sanitary authority will conduct studies to identify exposure routes. Notify the sanitary authority. With respect to domestic utensils identified as an exposure source, the sanitary authority will inform the parent(s) or legal guardians which are sources to be eliminated. With respect to domestic utensils identified as an exposure source, the sanitary authority will inform the parent(s) or legal guardians which are sources to be eliminated. Conduct a follow-up of the case. Inform the family about the exposure to environmental lead; promote good health, food and sanitary habits.
25-44 µg/dl	3	1	<ul style="list-style-type: none"> Monthly repeat the lead testing with blood drawn from veins until the lead level in blood is <25 mg/dl. Conduct a complete medical assessment by a specialist, considering biological indicators to evaluate damage, in order to define type of care (case handling). Prescribe dietary supplement: iron, calcium and others based upon the complete medical assessment, considering the doctor's criteria. Immediately notify the case to the sanitary authority. Determine lead levels in blood of other persons living in the same house. Immediately notify the case to the sanitary authority. The sanitary authority must identify the exposure source(s) and conduct measures for its control or elimination. The sanitary authority will conduct studies to identify exposure routes. With respect to domestic utensils identified as an exposure source, the sanitary authority will inform the parent(s) or legal guardians which are sources to be eliminated. Conduct a follow-up of the case. Inform the family about the exposure to environmental lead; promote good health, food and sanitary habits.
Total	250	100	

n = number of samples

Table 11. Blood lead levels by age

Age group (years)	Mean (µg/dl)	Standard deviation	Frequency
< 1	7.93	9.10	19
1-4	8.36	4.12	39
5-10	9.15	4.81	77
11-15	9.50	4.93	115
Total	9.10	5.20	250

n = number of samples

9.6 Assessment of environmental risk associated with the presence of copper (July 2001)

213. In the course of its search for relevant information, the Secretariat identified a July 2001 report by the company Grupo van Ruymbeke that attributes the presence of copper at the site to activities related not to BASF Mexicana but to the production of sugar.⁴⁸⁴ However, in April 2002, the same author submitted a second report assessing the environmental risk associated with the presence of copper at the Facility.⁴⁸⁵ This report provides, *inter alia*, updated information on the source of the copper found during the restoration work on the Facility.⁴⁸⁶
214. The report submitted to BASF Mexicana in April 2002 notes that during the characterization work on the Facility, copper was detected in the backfill used in the floors and maintains that this is not related to the raw materials used in the manufacturing of pigments.⁴⁸⁷ However, it was found that between May 1986 and November 1993, BASF Mexicana was involved in the packing of agrichemicals which in some cases contained copper.⁴⁸⁸ During the period when agrichemicals were being handled at the Facility, 25 different substances were being packing, of which the following are notable for their copper content:

Table 12. Copper-containing agrichemicals packed at the Facility⁴⁸⁹

Name	Use	Copper content	kg packed	Period
Basfoliar	Fertilizer	20 ppm copper	1,757	1990-1991
Cobox	Fungicide	20% copper hydroxychloride	11,957	1991-1992
Kauritil	Fungicide	80% copper hydroxychloride	100,870	1986-1991
Nitrofoska	Fertilizer	20% copper	8,453	1990-1992

215. The report states that, although copper “is an essential micro-nutrient in human nutrition” and that excess copper is eliminated through the kidneys,⁴⁹⁰ human health effects arising from overexposure to copper have been documented, including cirrhosis of the liver, brain and liver damage, and copper deposition in the cornea.⁴⁹¹
216. The report includes a section on analysis of copper in areas of the Facility dedicated to the management of agrichemicals, as well as an explanation of their presence in other parts of the Facility where such substances were not employed.⁴⁹²

217. In relation to the migration of copper outside the Facility, the consultant found that wind is not a likely transportation mechanism, since the soil is covered by concrete tile. Leaching is considered improbable, since the Facility building does not allow for water seepage, and the soil, being composed of silty clays, is relatively impermeable (the consultant applied a model in this regard).⁴⁹³ The report states that “the distribution of copper in the backfill will remain unaltered in the future” and found that copper is bound to the substrate and is not mobile in the soil.⁴⁹⁴ In addition, the consultant found that water is not an exposure route, since the conditions for leaching into the water table are not present. Since air is not in contact with the soil where the element was detected, it cannot act as a dispersing agent.⁴⁹⁵
218. Concerning the copper detected in the soil, the consultant found that “it is not possible for it to be mobilized and dispersed.” However, in view of the restoration plan for the Facility, the consultant recommended excavating down to 1.50 m instead of 1.20 m in the former agrichemicals packing area of the Facility.⁴⁹⁶

9.7 “Geophysical Study El Hospital Village Morelos, Mexico,” 2 June 2002

219. On 2 June 2002, the company Environmental Geophysics Associates, headquartered in Spring, Texas, submitted a geophysical study to the company Dames & Moore, Inc., which served as a basis for the preparation of the risk study discussed in section 9.9.⁴⁹⁷
220. The purpose of the study was to identify, using ground penetrating radar (GPR) for detection of conductivity, any lead and/or chromium pigment waste that may have been buried along roads in El Hospital.⁴⁹⁸
221. The study concludes by stating that the measurements taken at the Facility did not point to any significant anomalies; however, the GPR data obtained from ditches containing bags of pigment indicated burial-related alteration in the majority of cases.⁴⁹⁹ In regard to the measurements taken in the locality of El Hospital, the study states that some of the anomalies detected have to do with changes in soil texture and that they appeared while data was being gathered for the sounding.⁵⁰⁰

9.8 Risk plan based on soil sampling event of 6 June 2002

222. On 6 June 2002, the company Quantitative Decisions, headquartered in Pennsylvania, USA, submitted the results of the risk plan to BASF Mexicana.⁵⁰¹ The document appears as an appendix to the risk study produced by the company Dames & Moore de México. The purpose of this study was to perform “a comparative risk analysis,” i.e., to detect potential sources of lead and hexavalent chromium contamination along any routes of exposure that may be identified.⁵⁰² The comparison values proposed in the study are as follows:
223. The data used in preparing the report derive from the analytical results of samples obtained by Profepa and the owner of Ex Hacienda El Hospital. The data obtained are summarized below:

Table 13. Comparison values proposed in the risk study⁵⁰³

Comparison value	Use or criterion	Contaminant	Issuing authority
200 mg/kg	Residential	Lead	Profepa
400 mg/kg	Residential for surface soil in children's recreation areas	Lead	EPA
1,200 mg/kg	Surface soil	Lead	EPA
230 mg/kg	Based on risk of particle inhalation	Hexavalent chromium	EPA

Table 14. Overview of sampling included in the risk study⁵⁰⁴

Location	No. of sampling points	Location*	No. of samples	Contaminants analyzed
Soil of the Facility	41 points selected by Profepa	164 locations at 0.5, 1.0, and 1.5 m	328 made up of two samples per "location"	Total Pb and Cr (Profepa); Pb and Cr ⁺⁶ (Abe)
Hoses originating in the Facility on the Adjacent Lot	13 points along the paths of the hoses obtained by Mr. Abe	39 locations at 0.25 and 0.60 m	117 samples	Pb and Cr ⁺⁶
Soil from neighboring lots in Ex Hacienda El Hospital	47 selected by Quantitative Decisions	94 locations at 0.30 m	104 samples, 10 of them duplicate	As, Co, Cu, Pb, Cr ⁺⁶ , Fe, Mo, Ni, and pH**
Sediment from properties in El Hospital	6 selected by Quantitative Decisions	6 from sediments	6, with 1 duplicate sample	As, Co, Cu, Pb, Cr ⁺⁶ , Fe, Mo, Ni, and pH**
Soils from roads in El Hospital	18 selected by Quantitative Decisions	36, 2 samples per point, sampling at surface and 0.30 m	40 samples, including 4 duplicates	As, Co, Cu, Pb, Cr ⁺⁶ , Fe, Mo, Ni, and pH**
1,200 mg/kg	Surface soil	Lead	EPA	EPA

* I.e., depths at each sampling point.

** Of these contaminants, Pb and Cr⁺⁶ were included in the study; Cr, Mo, and Cu are considered to be associated with the historical operations of the Facility, and the rest were selected for their usefulness to the soil characterization.

224. In total, 417 "locations" at 125 sampling points of the Facility, the Adjacent Lot, the property of residents of El Hospital, and roads and common areas in this locality were subjected to comparative risk analysis.⁵⁰⁵
225. The Quantitative Decisions report maintains that the data compiled by BASF Mexicana are "of the most scientifically rigorous type," since the reasons for obtaining them were specified and the uses for each piece of data and the data gathering, preparation and analysis methods were defined.⁵⁰⁶ The study maintains that the data compiled by Profepa and Mr. Abe "lack this rigor," although they may be "adequate for estimating averages," and therefore, absent a well-defined statistical design, such data are considered "convenience samples" or "judgment samples."⁵⁰⁷ This would be the case if it is assumed that Profepa and Mr. Abe looked for the highest concentrations and took the greatest possible advantage of the field evidence in order to present "the worst-case scenario."⁵⁰⁸ In addition, it is maintained that Profepa's procedure divided each sample into two parts, one delivered to the Profepa lab and the other to Mr. Abe (analyzed by Laboratorios ABC).⁵⁰⁹ While the comparison of results yields information on "the random and systematic components of the variability" between laboratories, it does not serve to ascertain whether the analysis performed by each laboratory was accurate.⁵¹⁰
226. An analysis of the variability between laboratories shows that Profepa's lab obtained results eight times higher than the ABC lab.⁵¹¹ In addition, it is considered probable that the sampling and analysis procedures used by Laboratorios ABC and the Profepa lab were of poorer quality than those used by the laboratory retained by BASF Mexicana.⁵¹² The consultant concludes that "it is obvious that at least one of the two laboratories – Profepa's or ABC – generated systematically biased results"⁵¹³ and suggests that "the Profepa laboratory is highly likely to have been responsible for the high inter-lab variability."⁵¹⁴

227. The consultant found that the Profepa results for lead “appear to be extraordinarily variable and may be biased by as much as a factor of eight.”⁵¹⁵ In fact, it is relevant to note that the risk study produced by Dames & Moore specifies that “Laboratorios ABC holds accreditation ... the Profepa laboratory held the required certification, but Profepa does not recognize its own laboratory for purposes of environmental analysis and there is insufficient information about its quality control processes....”⁵¹⁶
228. In addition, a descriptive analysis on the lead measurements taken from the drain pipes shows that the concentrations detected immediately under the drain tend to be higher than the lateral concentrations;⁵¹⁷ that concentrations decrease with depth,⁵¹⁸ and that in most cases the concentrations vary between 8 and 90 mg/kg.⁵¹⁹ The study further concludes that hexavalent chromium was not detected in any of the samples taken in the vicinity of Ex Hacienda El Hospital and that the highest lead concentration was 150.2 mg/kg, lower than the strictest proposed value of 200 mg/kg.⁵²⁰ In addition, the study establishes that none of the more than 400 soil samples taken in the vicinity of Ex Hacienda El Hospital “exhibited a hexavalent chromium concentration posing a risk to human health or the environment”,⁵²¹ that the “mean lead” concentrations under the pipes are “slightly higher” than the reference values;⁵²² that lead concentrations inside the Facility “cannot be strictly estimated due to the way in which Profepa and Mr. Abe selected the sampling points,”⁵²³ and that, all things considered, “the median lead concentrations” are below 104 mg/kg, a value lower than the comparison value.⁵²⁴
229. The study acknowledges, however, that “some sampling points on the property [i.e., Ex Hacienda El Hospital] exceed the risk-based comparison levels for lead,” which is why BASF Mexicana has restoration plans;⁵²⁵ that the areas of high concentration are located in the wastewater treatment system and throughout much of the industrial activity, with lead and chromium exhibiting “a propensity to move through the porous cement-based materials,”⁵²⁶ and that, all things considered, the data suggest that these contaminants are not likely to migrate laterally.⁵²⁷ Finally, in reference to the former common area (on the Adjacent Lot), the groundwater under the Facility, and the materials found within it, the study concludes:

there is evidence that the mean lead and hexavalent chromium concentrations are higher than the reference value in the topmost meter of soil, but it appears probable that these means are significantly lower than the strictest standards....⁵²⁸

9.9 Dames & Moore de Mexico risk study of 27 June 2002

230. On 27 June 2002, Dames & Moore de Mexico, S. de R.L. de C.V., submitted to BASF Mexicana the final report of a risk study commissioned by BASF Mexicana. The document states that, in February 2002, BASF Mexicana submitted to Profepa a sampling plan for the performance of the risk study, which was designed “to assess whether there were ... risks to the environment due to exposure to toxic substances on the properties adjacent” to the Facility.⁵²⁹ The risk study was produced in accordance with the Semarnat guide⁵³⁰ and was submitted by BASF Mexicana to Profepa,⁵³¹ Semarnat,⁵³² and the Ministry of Health.⁵³³ The Dames & Moore risk study included a compilation of other studies that are discussed in this factual record.⁵³⁴
231. The study area was divided into: Area I (Facility), in brown; Area I-A (Adjacent Lot-common access area), in blue; Area II (Adjacent Lot, outside the common area), in gray, and Area III (locality of El Hospital), not shaded.

Figure 7. Areas defined by the Dames & Moore study⁵³⁵



232. The risk study included the collection of soil substrate samples, the measurement of the properties of these substrates and their capacity to transport contaminants, and the measurement of metal concentrations in samples taken to characterize the quantity and magnitude of “any migration that may have occurred.”⁵³⁶ The study states that the results of the characterization study produced in 1999 for Area I (Facility) are not considered in the report because the cleanup activities have concluded and Profepa’s corresponding determination is awaited.⁵³⁷
233. As regards the analysis results for Area I-A (Adjacent Lot-common access area), it is reported that the analysis of contaminants in soil samples taken next to a site where there were hoses to supply water to the Facility “did not detect levels of hexavalent chromium” in excess of the reference criteria.⁵³⁸ In regard to the results for lead, the samples taken in the hoses area lead to the conclusion, “with higher than 95% confidence,” that mean concentrations do not exceed the reference criteria.⁵³⁹

Figure 8. Maximum concentrations of chromium⁺⁶ (ppm) on the Adjacent Lot⁵⁴⁰

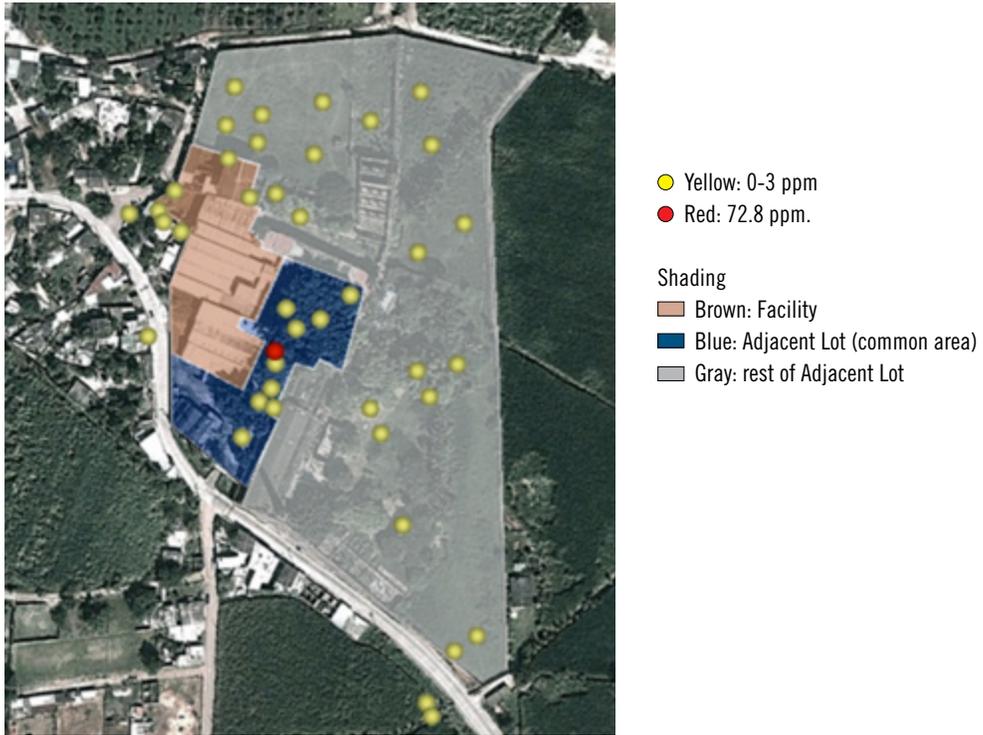
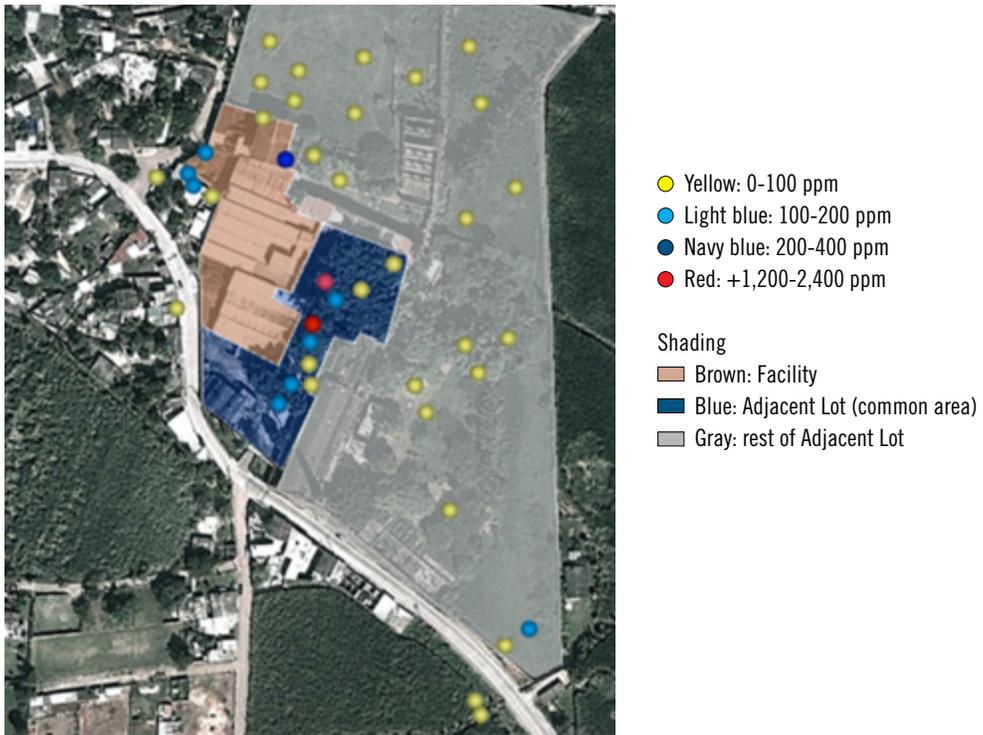


Figure 9. Maximum concentrations of lead on the Adjacent Lot⁵⁴¹

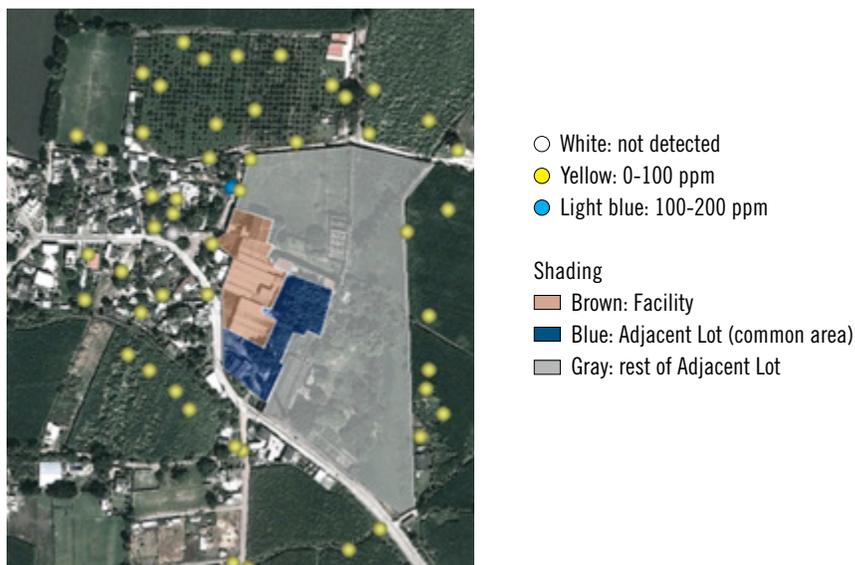


234. In relation to the analysis results from Area III (community of El Hospital), lead or hexavalent chromium levels in excess of the selected criteria were not identified and, in fact, hexavalent chromium was not reported from any of the samples.⁵⁴² The BASF Mexicana consultant concludes that the data “show that concentrations decrease with distance from the roads, with most of the decline occurring over the first 25 meters.”⁵⁴³ Finally, sediment sampling at points with the highest probability of runoff from the Facility yielded concentrations lower than 100 ppm.⁵⁴⁴

Figure 10. Maximum concentrations of chromium⁺⁶ (ppm) in El Hospital⁵⁴⁵



Figure 11. Maximum concentrations of lead (ppm) at El Hospital⁵⁴⁶



235. Table 15 presents the study that compared the maximum reported concentrations obtained by the Profepa laboratory and Laboratorios ABC.

Table 15. Comparison of maximum reported concentrations⁵⁴⁷

	Sampling depth	Cr ⁺⁶ (ppm)	Pb (ppm)
Comparison value (a)			
Profepa*		–	200
EPA**		230	400
EPA***			1200
Results			
Area I-A. Soils			
Sampling point no. 2	0.5 m	72.8	55,350.2
Sampling point no. 5	0.0 m	0.8	476.1
Area I-A. Soil next to hoses			
Sampling point T2C2.DP1	0.00-0.15 m	0.6	390.6
Sampling point T1.IP2	0.25-0.40 m	<0.04	1,211.7
Area II. Soils			
Sampling point no. 19	0.0 m	2.7	304.5
Sampling point no. 40	0.0 m	0.5	255.5
Design Samples - Area III	0.3 m	<0.3	150.17
Judgment Samples - Area III	0.3 m	<0.2	64.00
Area III. Sediments	0.0 m	<0.8	49.66
Reference samples	0.3 m	<0.3	31.01

* Profepa, Second group of interim criteria for restoration of soils contaminated with toxic inorganic compounds (heavy metals) and others;⁵⁴⁸

** EPA, Residential criterion with children's recreation areas; *** EPA, General residential criterion. All samples obtained from July 2001 to April 2002.

236. In regard to the probity of the samples obtained in Area II (Adjacent Lot, outside the common area), the BASF Mexicana consultant found that the ABC and Profepa laboratory results “probably represent the worst conditions in the vicinity of the former plant, [and] are not average conditions. Therefore, only qualitative estimates of average conditions can be made.”⁵⁴⁹

237. The consultant concludes that there is no risk of exposure due to the presence of lead and hexavalent chromium in the locality of El Hospital nor in the natural soils of Area II (Adjacent Lot, outside the common area).⁵⁵⁰

9.10 Report on final cleanup of drains and environs

238. In June 2009, Grupo van Ruymbeke submitted to BASF Mexicana the final report on the cleanup of the drains at the Facility and on the completion of work on the Adjacent Lot.⁵⁵¹ The objective of the work reported in the document was to supervise cleanup so as to ensure that the building at the Facility could be used in new activities compatible with the applicable land use designation and environmental law.⁵⁵² The contents of this report are discussed in section 11.4 of this factual record.

10. Enforcement of LGEEPA Article 170 in Connection with the Alleged Illegal Disposal of Hazardous Waste in the Community of El Hospital

10.1 Introduction

239. The Submitters assert that BASF Mexicana allowed waste to leave the premises during the dismantlement of the Facility and that this waste was then dumped on lots in El Hospital.⁵⁵³ Additionally, the Submitters assert that the Company “gave former employees and local residents ... packing materials, boards, drying trays, and other materials that had been in contact with or contained hazardous waste, or sold these items to them at low prices.”⁵⁵⁴
240. Mexico includes documents in the appendices to its response recording the giving and selling of debris and materials⁵⁵⁵ and the dumping of these items on approximately 42 lots, including a primary school⁵⁵⁶ and areas used by the general public in El Hospital.⁵⁵⁷ The documentation describes the domestic use of the pigment-containing material delivered by BASF to former employees and residents of Ex Hacienda El Hospital.⁵⁵⁸
241. The Submitters assert that Mexico is failing to enforce LGEEPA Article 170 in relation to the alleged illegal disposal of hazardous waste on the property of residents of El Hospital.⁵⁵⁹ The Submitters assert that Profepa did not order the statutorily prescribed safety measures applicable to property such as the lots where hazardous waste was dumped during the dismantlement process, nor did it notify the public health authorities of these occurrences.⁵⁶⁰
242. LGEEPA Article 170 provides that where there exists an imminent risk to public health and the environment, the authority may order safety measures, including shutdown, seizure of hazardous waste, or any similar act that averts dangerous consequences for ecosystems, their components, or public health. The same article empowers Semarnat to solicit the implementation of safety measures contemplated in other laws from other competent authorities. The text of this provision is given in Appendix 10.

10.2 Identification of lots, wastes, and materials

243. The Submitters assert that Profepa did not identify all the lots in question, nor did it produce an inventory of all the wastes dispersed throughout the locality of Ex Hacienda El Hospital.⁵⁶¹
244. On 25 February 1998, the manager of the Facility operated by BASF Mexicana made the following statement in a letter to the municipality of Cuautla:

BASF Mexicana, S.A. de C.V., at the request of some former plant employees and some residents of the community of El Hospital, gave these individuals debris deriving from the demolition of the Facility’s ice storage silos and dryers ... to be used for paving of driveways on their property.

Similarly, it gave or sold for a token amount some materials deriving from the dismantlement of the plant, including scrap iron, drums, buckets, wooden boards, and other items.⁵⁶²

245. As stated by the Facility manager during an inspection visit by Profepa personnel, “the company BASF Mexicana, S.A. de C.V., gave out objects or material from the industrial bay in small quantities, within the plant, without knowledge of whether they were being taken home by the people who acquired them ... these items were given away or in some cases sold for a token amount...”⁵⁶³

246. In the citizen complaint filed by Roberto Abe Domínguez with Profepa on 1 October 1997, the complainant requested an analysis of the alleged contamination caused by the Company in El Hospital, stating that “a portion of the waste from the factory was dumped in the village by the transnational and used for backfilling local streets”⁵⁶⁴ (see section 7.4.1).
247. On 10 December 1997, a citizen complaint was filed with Profepa, reporting occurrences relating to the disposal of waste and debris on public property and in public areas of El Hospital.⁵⁶⁵ In addition, on 22 January 1998, a written document was filed with Profepa alleging the sale by the Company of various allegedly contaminated materials to residents of El Hospital (see section 7.4.2), to which were attached 24 “material exit passes” allegedly issued by BASF Mexicana to the buyers, which indicated the buyer’s name, the material purchased, and the quantities sold.⁵⁶⁶
248. On 23 June 1998, in the course of the administrative proceeding instituted by the Profepa office in Morelos, an inspection visit was made and the following was noted:
- Roberto Abe Almada states that he has knowledge that BASF Mexicana, S.A. de C.V., sold boards, buckets, barrels, rebar, beams, fiberglass tubs, etc., to residents of this same locality of El Hospital, ... in addition, it is known that these were found to be impregnated with yellow and red pigment; he also states that another portion of the waste generated by the dismantlement of the Company, similarly impregnated, is to be found in a warehouse fitted out for that purpose.⁵⁶⁷
249. On 27 November 1997, inspectors reporting to Profepa commenced visits to El Hospital with a view to identifying the lots where debris, objects, or materials deriving from the dismantlement of the Facility were dumped.⁵⁶⁸ During the procedures, four sites were identified where a volume of at least 51 m³ of demolition debris from the ice storage silos and product dryers had been disposed of, and samples were therefore taken for analysis and characterization.⁵⁶⁹ Subsequently, Profepa ordered visits to be made to various lots to verify the existence of debris and materials as well as to take samples in order to determine the hazardousness thereof.⁵⁷⁰
250. During the inspection visits of 9 February, 17 February, and 15 May 1998, Profepa identified material given or sold by the Company to 18 residents of El Hospital, as well as material dumped on the grounds of the “Héroes de Chapultepec” rural primary school and at the entrance to the “La Concepción” sports facility.⁵⁷¹ The inspection records do not specify that sampling was performed. On 23 June 1998, Profepa took a sample of debris deriving from demolition of the pigment drying ovens, structures, bases, and foundations of the process equipment that had been used for backfilling unpaved streets in El Hospital.⁵⁷² The sample was labeled “M-4A” (see sections 9.3 and 12.3).

10.3 Removal of debris and sampling

251. In its decisions of 12 January and of 6 and 24 February 1998, Profepa ordered BASF Mexicana to remove the demolition waste from the properties where it had been dumped.⁵⁷³ In addition, in official documents dated 2 and 10 March 1998, Profepa informed approximately 42 residents of El Hospital that the Company would proceed to collect the waste and materials in their possession. During the month of March, 44 detailed records were drawn up for different properties in El Hospital.⁵⁷⁴
252. On 28 July 1998, Profepa made a visit to the warehouse rented by BASF Mexicana at kilometer 106 of the old Cuautla-Oaxaca highway to verify the removal and final disposal of debris, materials, wastes, and objects given and/or sold by the Company.⁵⁷⁵ A total of 115 m³ of debris was documented, and a compound sample of this debris was taken and sent to the Profepa Central Laboratory.⁵⁷⁶

253. From 29 to 31 July 1998, Profepa made an inspection visit to 45 persons and/or families in El Hospital to verify the removal of materials.⁵⁷⁷ Twelve of the people interviewed stated that they had received an approximate volume of 185 m³ consisting of 32 truckloads of debris⁵⁷⁸ and that the Company had removed around 100 m³ of debris from six of the lots.⁵⁷⁹ The interviewees further stated that the debris had been replaced with filling materials carried in two trucks with a capacity of 7 m³ each; one truck with an unspecified capacity;⁵⁸⁰ five trucks with a capacity of 7 m³, and four trucks with an unspecified capacity. The interviewees also received 31.5 m³ of crushed rock,⁵⁸¹ 21 m³ of sand and one truck carrying river sand of the kind used in making concrete.⁵⁸² As well, six residents stated that the debris had not yet been removed,⁵⁸³ and on three of these properties Profepa took samples that were labeled M-P1, M-P2, and M-P3 for analysis by the Profepa laboratories.⁵⁸⁴
254. On 3 September 1998, Profepa approved BASF Mexicana's timelined cleanup and/or dismantlement plan for the Facility, stipulating that:
- During the inspection visits made to the properties where the company in question [BASF] dumped debris deriving from the dismantlement work, the existence of materials impregnated with chromium and lead pigment was detected on some of these properties, and since these elements are considered hazardous waste pursuant to Mexican Official Standard NOM-052-ECOL/93, an order must be given for them to be sent for final containment....⁵⁸⁵
255. Profepa again ordered BASF Mexicana to remove and contain the objects and debris located on the property of 20 residents of El Hospital that had been identified during the inspection of 29 July 1998 and had not been removed.⁵⁸⁶
256. On 17 September 1998 and 21 January 1999, Profepa noted that six residents had stated that they had received an average of 95 m³ of debris; in addition, it verified the removal of 187 m³ from these lots.⁵⁸⁷ The removed debris was replaced by 28 m³ of backfill, 192 m³ of crushed rock, 10 m³ of sand, and two truckloads of stones.⁵⁸⁸ After completion of the cleanup and removal of debris, on 31 July 1998 sampling was performed on these lots and the samples were labeled P-01, P-02, P-03-01, and P-03-02.⁵⁸⁹ Additionally, on 26 September 1998, 15 compound samples were taken from the warehouse owned by Emilio Zariñana Díaz that had been rented by the Company for temporary storage of the removed demolition debris.⁵⁹⁰

10.4 Removal and replacement of objects and materials given or sold

257. On 28 July 1998, Profepa made an inspection visit to the warehouse rented by BASF Mexicana at kilometer 106 of the old Cuautla-Oaxaca highway. The inspectors inventoried 156 pigment-containing wooden boards, 37.5 200-l metal drums, 84 plastic buckets, 23 pigment-impregnated plastic jugs, 40 structural metal pieces, and a batch of pigment-impregnated stainless steel pipes that had been collected by the Company from residents of El Hospital.⁵⁹¹
258. From 29 to 31 July 1998, Profepa conducted visits to 45 persons and/or families in El Hospital. Of these, 31 stated that they formerly or still had in their possession materials or objects given or sold by BASF Mexicana.⁵⁹² In addition, 18 residents noted the removal of various objects,⁵⁹³ while 17 of them had received replacement construction materials and, in one case, monetary compensation of 600 pesos.⁵⁹⁴ Another 13 residents told Profepa that BASF Mexicana had dumped material from the Facility on their property;⁵⁹⁵ however, the corresponding inspection record does not establish that the residents noted the removal of these objects and materials by BASF Mexicana.
259. During the inspection visits conducted by Profepa on 17 September 1998 and 21 January 1999 to 20 residents of El Hospital, including the 13 residents mentioned in the previous paragraph,⁵⁹⁶ the removal of objects and materials by the Company from the property of 16 residents was verified.⁵⁹⁷ In exchange for the objects collected, the residents of El Hospital received construction materials and other items.⁵⁹⁸

260. The inspection record of 17 September 1998 takes note of materials and objects that were not removed from four lots in El Hospital.⁵⁹⁹ In one case, the material and objects in question were not removed because “the lots were observed to be currently clean.”⁶⁰⁰ In another case, according to the owner of one of the lots, “the property is currently clean and in good condition.”⁶⁰¹ Another resident stated “that he had no desire to exchange the material found on his property, since his property is currently clean and there are no traces of pigment on it”; likewise, the Profepa inspectors stated that the material was not impregnated with pigment.⁶⁰² In one case, the property owner did not want to return the objects in his possession, “requesting that these be exchanged for the equivalent items made of plastic.”⁶⁰³

10.5 Final disposal of debris, objects, and materials given or sold

261. In a decision of 26 November 1998, Profepa approved BASF Mexicana’s plan to send the debris and materials from dismantlement of the Facility for final disposal at Residuos Industriales Multiquim, S.A. de C.V., in Mina, Nuevo León.⁶⁰⁴ However, on 19 January 1999, Profepa voided this decision because the analytical results of only one sample (P-04-01) exceeded NOM-052 (7.56 mg/l of lead) and because BASF Mexicana argued that the sample had been taken in the absence of Profepa inspectors.⁶⁰⁵
262. On 21 January 1999, Profepa inspectors produced a detailed account of the measures relating to the total removal to controlled containment of the waste, debris, and materials found in the warehouse located at kilometer 106 of the old Cuautla-Oaxaca highway that had been collected from the property of residents of El Hospital.⁶⁰⁶

10.6 Sanctions imposed for the dumping of waste on third-party property

263. Mexico’s Response includes information concerning the sanctions imposed by Profepa in relation to hazardous waste dumped on third-party property during the dismantlement of the Facility.⁶⁰⁷ Profepa also sanctioned the Company for failing to inventory the debris from the Facility before delivering it to third parties.⁶⁰⁸
264. The Profepa administrative decision to sanction BASF Mexicana found that the delivery of wastes to residents of Ex Hacienda El Hospital jeopardized public health and the environment:

It is no surprise that the materials found on the above-mentioned property ... were impregnated with red and yellow pigment, and must be considered hazardous waste ... Consequently, this waste must be managed as hazardous waste, sending it for final disposal in accordance with the applicable law.

[T]he hazardous waste found on the premises visited should have been managed in such a way that it never came in contact with other, non-hazardous waste; i.e., it should have been properly inventoried and stored in the temporary hazardous waste warehouse, so that it could be sent in due course for treatment and/or final disposal as applicable; and in the case at hand, this waste left the industrial bay dismantled by the aforementioned corporation [BASF] and was delivered to residents of “El Hospital,” municipality of Cuautla, state of Morelos, thereby jeopardizing public health as well as the environment and its components.⁶⁰⁹

265. Profepa fined BASF Mexicana 140,400.00 pesos, equivalent to 3,000 times the statutory daily minimum wage in the Federal District at the time the sanction was imposed, for failing to dispose adequately of materials considered hazardous waste that were generated during the dismantlement of the Facility. In levying this fine, Profepa took into account that the Company “cured the irregularity detected, given that [the materials] were removed from the lots where they were found and were received from the various persons to whom they had been delivered, and sent for controlled containment.”⁶¹⁰

266. The administrative decision in question establishes that BASF Mexicana did not possess a log of all the waste generated during the dismantlement of the plant, and thus the offense defined by LGEEPA Articles 150 and 151 and RRP Article 8 paragraph II was substantiated.⁶¹¹ According to Profepa:

The company's failure ... to keep an annotated log on all the hazardous waste generated further to the dismantlement of the inspected plant, the failure to characterize the waste generated by this activity, and the company's improper disposal of hazardous waste-contaminated materials makes it difficult to obtain detailed knowledge of the characteristics and quantities of waste ... and it therefore becomes impossible to manage all the waste using techniques suited to the characteristics of each type of waste....⁶¹²

267. Profepa fined BASF Mexicana 140,400.00 pesos, equivalent to 3000 times the statutory daily minimum wage in the Federal District at the time the sanction was imposed, for failing to keep a log of all the waste generated during the dismantlement of the Facility, "taking into account as an attenuating circumstance that it cured the irregularity detected."⁶¹³

268. The total fine imposed by Profepa, which comprises all the alleged violations of BASF Mexicana, was 1,872,000 pesos,⁶¹⁴ the approximate equivalent of US\$176,000 as of December 2005.⁶¹⁵ The total fine is itemized in the following table.

Table 16. Fines imposed on BASF Mexicana by Profepa⁶¹⁶

Violation	Amount (pesos)	Minimum wage equivalency (days)
Absence of a hazardous waste generation registry (log book) during dismantling of the Facility	140,400	3000
Failure to characterize hazardous waste generated during dismantling of the Facility	140,400	3000
Failure to adequately store hazardous waste	28,080	600
Failure to adequately dispose hazardous waste	140,400	3000
Failure to have hazardous wastes signs in the storage area designated for hazardous waste	18,720	400
For soil contamination caused by hazardous waste accumulated, deposited or infiltrated during activities at the Facility	936,000	20,000
For contamination of the structure of the Facility	468,000	10,000
Total fine	1,872,000	

269. As noted in paragraphs 144, 155 to 158 above, BASF Mexicana filed several actions to counter this decision on fines which was, as a result of BASF Mexicana's appeal, declared void by the judiciary.

11. Enforcement of LGEEPA Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170, RRP Articles 8 paragraph X, 10, and 12, and Mexican Official Standards NOM-052-Semarnat-1993 and NOM-053-Semarnat-1993 in connection with the alleged illegal disposal of hazardous waste at the Facility

270. The Submitters assert that BASF Mexicana illegally disposed of hazardous waste at the Facility and on the Adjacent Lot⁶¹⁷ and that despite the site restoration work, there is still soil contamination.⁶¹⁸ They further contend that the restoration work was suspended in May 2005 by order of the municipality of Cuautla, citing violations of the construction permit.⁶¹⁹
271. By means of decisions issued 20 July, 19 September, and 24 October 2000 in file no. B-0002/775, the Director of Inspection and Surveillance of Profepa authorized the Company BASF Mexicana to carry out the environmental restoration plan.⁶²⁰ In its Response, Mexico states that the restoration measures for the Facility and the Adjacent Lot were continually blocked by the property owner and that these measures had to be suspended on 31 May 2005 since the owner's continual opposition made it impossible for the inspectors and the Company BASF Mexicana to carry out the restoration work.⁶²¹

11.1 Introduction

272. Various findings of buried pigments were documented during Profepa's inspection of the Facility and the Adjacent Lot, and these are discussed in this section. These findings eventually led to the modification of the restoration plan and are related to the opposition by the owner of Ex Hacienda El Hospital to the performance and completion of the restoration work. The findings of buried pigments both within the Facility and on the Adjacent Lot were documented. In the majority of the cases, no samples were taken from the pigments found since the inspector deemed the pigment found to be within the depth considered safe under the restoration plan, and therefore the hazardousness characteristics of the waste were not determined. Furthermore, when it was decided to sample pigments and pigment-containing material, the Company objected, arguing that the samples would not be representative. The sampling ultimately performed was of the compound type and the samples were taken from the mounds of materials derived from the excavation.
273. Figure 12, an aerial view of the Facility and part of the Adjacent Lot, shows the approximate locations of the working areas designated for purposes of the restoration plan.

Figure 12. Areas designated in the restoration plan⁶²²



Table 17. Location of the areas designated in the restoration plan with respect to the operational areas of the Facility⁶²³

Process area	Area
Raw materials receiving	1
Raw materials receiving	2
Waste storehouse	3
Precipitation area	4
Raw materials warehouse	5
Tanks	6
Arches	7–9
Area of influence	10
Mixing and loading	11–13
Warehouse and dryer	14
Outside of the Hacienda	15
Pit 3	16
Pit 9	17
Pit 15	18
Pit 16	19
Pit 17	20
Discovered corridor	21

Note: For more information, see Figure 12.

274. The Profepa decision of 20 July 2000 established restoration levels for soil and external drains that should be reached after conclusion of the restoration plan, specifying that contaminated soils had to be removed from the Facility. The parameters are identified in the following table.

Table 18. Soil restoration levels⁶²⁴

Parameter	Criterion for soils	Criterion for soils next to external drainage system
Cadmium	12	12
Total chromium	750	750
Hexavalent chromium	8	8
Lead	1000	200
Arsenic	20	20
Barium	1,500	750
Cobalt	80	40
Copper	225	225
Molybdenum	40	5
Nickel	150	150
Silver	40	20
Zinc	600	600

Note: all units are in mg/kg.

275. Months before the discovery of buried pigments in area 21, leading to the modification of the restoration plan (see section 11.2), Profepa documented on at least two occasions a finding of buried pigments in area 15 of the Facility and in the handling yard. The first of these findings occurred near the outset of Profepa's implementation of the restoration plan.⁶²⁵ A Profepa inspector recorded the following in the inspection record:

In addition, it was observed that during the activities around the support infrastructure; in the area where the showers were located, at the time of excavation, a trench 3.80 m long by 0.90 m deep by 1 m wide was opened, and yellow material (pigment) was found 20 cm below the current floor level. It should be noted that the material extracted from this excavation was transferred to the contaminated materials area on the premises.⁶²⁶

276. On November 25, point soil sampling was performed—though the yellow material was not sampled—at depths of 0.30 m and 0.80 m on the site where the presence of buried pigments had been detected.⁶²⁷ On 22 and 23 November 2000, a total of 12 soil samples were taken in area 15 of the Facility.⁶²⁸

277. On 2 January 2001 another finding was documented:

The excavation of the handling yard area continued. Red and yellow pigment was found in this area at a depth of 1.40 m, in an area approximately 40 cm thick and 1.10 m long.⁶²⁹

No further information is provided concerning sampling of the finding noted in the inspection record produced that day or in the records produced the following days.

278. Further to the finding recorded on 2 January 2001, there was another finding on 21 February 2001 that ultimately led to the modification of the restoration plan, since the plan did not include a procedure for managing buried pigment.

11.2 Finding of buried waste at the Facility and the Adjacent Lot

279. On 21 February 2001, during its inspection, Profepa recorded a finding of pigment on the Adjacent Lot (area 21):

Excavation began on the pits in area 21 ...

On the west profile of pit 1, styrofoam scraps were found at an approximate depth of 0.28 m.

The styrofoam is found at an approximate depth of 0.28 m.

The styrofoam is found horizontally along a line 1.4 m long and it is 0.15 m thick.

In this same pit, below the styrofoam, at an approximate depth of 1 m, there is a bright yellow mud-textured stratum that *is not mixed with the soil*. This stratum measures 1.3 m long by 0.20 m thick⁶³⁰ [Emphasis added]

280. Further to the finding in area 21, on 23 February 2001 Profepa took a sample of the yellow pigment stratum in pit 1 of the excavation.⁶³¹ In the same record, the authority documented the finding of “three rubber hoses approximately 3 m long ... buried at a depth of 15–20 cm,” without pigmentation.⁶³²

281. In addition, the DGII ordered BASF Mexicana to take a point sample in pit no. 1 of area 21 and found that “the Company should have taken samples of the pigment-containing wastes detected in the course of the environmental restoration work, where so ordered by inspectors reporting to Profepa...”⁶³³

282. In response to Profepa, BASF Mexicana contended that for the purposes of representative sampling, the samples should have been compounded; it added, however, that since the extent of the affected area had not been ascertained, it was impossible to perform representative sampling, and it maintained that a point sample lacked technical and legal validity.⁶³⁴ In addition, BASF Mexicana requested the implementation of a work plan for characterization of area 21, and the subsequent resolution of this request is detailed in section 11.2(i).⁶³⁵

283. In response to BASF Mexicana’s request of 20 March 2001, on 27 March the DGII ruled that the purpose of the point sample was limited to ascertaining “the nature and CRETI characteristics of the mud-textured yellow stratum,”⁶³⁶ and BASF Mexicana accepted this explanation for the purposes of the sampling performed on 2 April 2001.⁶³⁷ On 28 March, the DGII asked Roberto Abe Domínguez for access to his property and stated that:

... the sample to be taken will constitute highly important evidence for the determination of the facts to be considered in the issuance of the relevant administrative decision.⁶³⁸

On 19 April 2001, BASF Mexicana informed the DGII that it had taken the requested sample and was awaiting the results.⁶³⁹ The Secretariat has not found, in the appendices to Mexico’s Response, the analytical results for the sample to which the preceding paragraph refers.

284. On 28 February 2002, Profepa documented the following finding in the loading dock area:

... while breaking up the concrete bases found in the loading dock area, soil mixed with a bright yellow substance was found. A sample was not taken because it was found to be below the planned remediation level. It ... has an approximate volume of 0.5 m³.⁶⁴⁰

285. On 1 March 2001, in the raw materials dock area, Profepa documented the following:

During the excavation of the raw materials dock area, a 1 m² by 1.2 m depth block composed of a bright yellow pasty substance was found. Adjoining this was another 0.5 m² by 0.8 m depth block, with the same characteristics.⁶⁴¹

286. The inspection record specifies that “no samples were taken” of the “pasty-textured block” since the inspectors found that the buried material was inside the area covered by the restoration plan;⁶⁴² i.e., since the material was found at the depth specified in the plan, it was not essential to determine its hazardousness characteristics, since in any event it would be sent for final disposal.

287. On 14 March 2001, during the work to break up the concrete at the Facility, Profepa documented the following:

When the floor of the corridor south of the chapel was removed and that location was excavated, a yellow stratum was observed on the west wall at 0.20 m below floor level, and it was therefore necessary to take a compound sample of this stratum, which ran along the entire wall ...⁶⁴³

288. On 3 April 2001, in the area of arch XXII, Profepa documented the following facts:

During the excavation of arch XXII, a 1-m length of metal pipe crossing the pit diagonally in a north-south (left to right) direction was found at a depth of 0.30 m, and below this was a bright red and yellow substance. A sample of this substance was taken. Continuing with the excavation at this arch, a 20-cm-wide strip of soil with brick-red coloration was observed along wall 4 of the arch, at a depth of 1.3 m. A sample of this soil was taken. Both samples are for CRETI analysis.⁶⁴⁴

289. Following the finding of April 2001, the work continued and a new finding of pigment and/or pigment-containing material was documented in September. This new finding documents pigments at a depth of 3.20 m, but it was unclear whether they resulted from burial or seepage:

Since pigment was found on walls 3 and 4 and on one of the concrete beams, two small exploration pits were made ... in which concentrated (yellow) pigment was observed under a beam bracket; moreover, the pigment was found at the bottom of the pit; i.e., pigment is still present 3.20 m below the floor level formerly occupied by the Company, and the water table is found at this same depth. Another pit was excavated in wall 4, and an area of pigment, 2 m long by 0.60 m high by 0.50 m wide, was found in a corner and at the bottom of the pit; i.e., pigment is still present at a depth of 2.75 m below the floor level formerly occupied by the Company.⁶⁴⁵

290. Sampling of columns and walls was performed, but it is not specified whether pigment samples were taken for CRETI analysis.⁶⁴⁶ Sampling was performed on walls 3 and 4 where pigment was found; these were compound samples centered at the bottom of the excavation and not in the pigment found,⁶⁴⁷ and it is therefore impossible to ascertain the CRETI characteristics of this material.

291. In regard to these findings, on 19 and 20 September 2001, the facts transcribed in this and the next paragraph below were documented. The first, from September 19, notes that the level of impact is determined through observation of pigment or pigment-containing material and not by means of analytical sampling:

... concerning the pigment detected in the soil and on wall 4, this has now been removed from the site; however, an exploration pit 2 m long by 0.50 m wide by 0.50 m deep was excavated at wall 4 with a view to ascertaining the level of impact, and it was found that pigment was still present in the soil at the bottom of one of the walls; i.e., there is still pigment in the soil in area 4.⁶⁴⁸

292. On 20 September 2001, it was recorded that pigment was identified and removed without a CRETI analysis during work on one of the walls in areas 1 and 2 of the precipitation area (area 25) :

In regard to the pigment found dispersed on wall 3 in area 1, this pigment was partially removed from this location... An exploration pit was then excavated with a view to identifying the magnitude of the impact on the soil. This pit was excavated at 2.75 m with the following dimensions: 1.35 m long by 0.60 m deep by 0.60 m wide. The excavation of the pit uncovered concentrated yellow pigment under one of the concrete beam brackets on wall 3, which had dispersed along one of the walls up to the bottom of the pit; i.e., pigment is still present in the soil at a depth of 3.35 m. Likewise, the presence of pigment could still be detected at the bottom of the pit. It should be noted that the water table in the precipitation area is found at a depth of 3.20 m....⁶⁴⁹

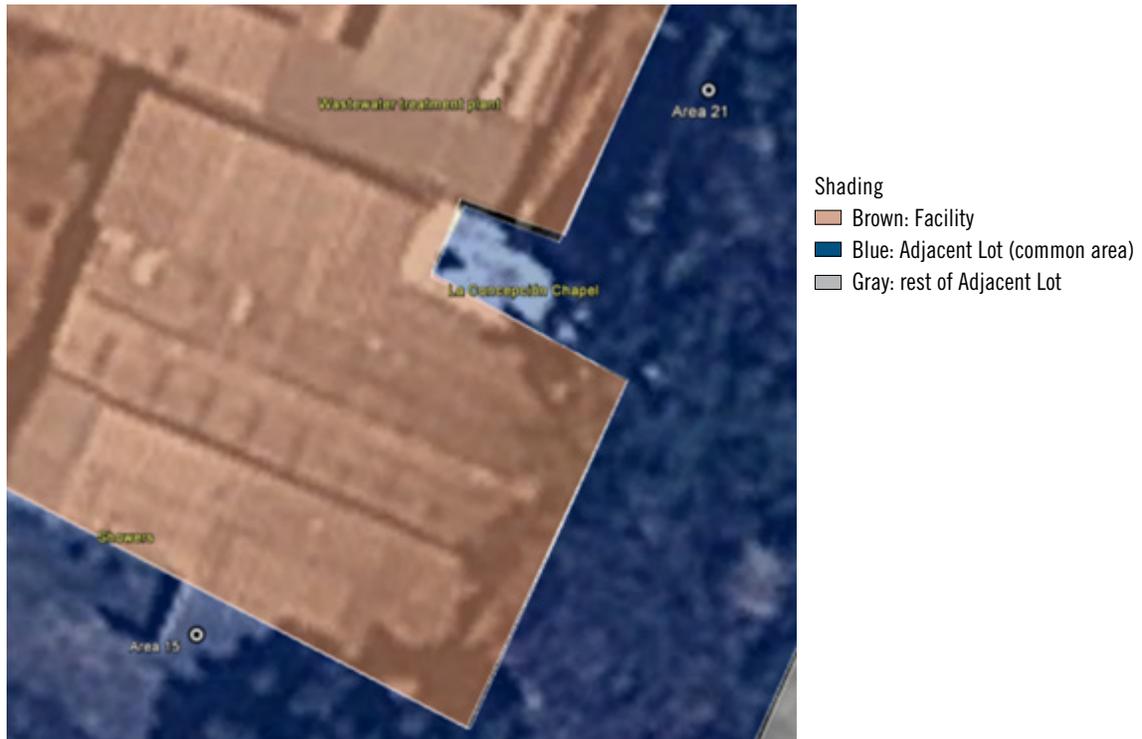
i. Modification of the restoration plan

293. On 19 April 2001, the DGII laid down the procedure to be followed in light of the discovery of a bright yellow mud-textured stratum during excavation on the Adjacent Lot (area 21)⁶⁵⁰ and an area of approximately 37.49 m² containing yellow pigment in the restrooms area (near area 15).⁶⁵¹ In the same document, the DGII clarified that the geophysical measurements proposed by BASF Mexicana were insufficient, since “they did not allow for the detection of contaminated material or hazardous waste with any certainty.”⁶⁵² Given the possible existence of pigment-containing material at the Facility and on the Adjacent Lot, and “given that this pigment could be a consequence of the production processes formerly used by BASF MEXICANA, S.A. DE C.V.”⁶⁵³ the DGII determined that point sampling was the method to be used in ascertaining levels of soil contamination.⁶⁵⁴
294. On 30 May 2001, BASF Mexicana sent a letter to the DGII contending that various circumstances had delayed, limited, or impeded access to the Facility for the purpose of implementing the environmental restoration plan⁶⁵⁵ approved by Profepa on 20 July 2000.⁶⁵⁶ These included Roberto Abe Domínguez’s opposition; the administrative shutdown ordered by Profepa; the seizure of the Facility ordered by the PGR,⁶⁵⁷ and the restrictions imposed by the National Institute of Archeology and History (*Instituto Nacional de Arqueología e Historia*–INAH) on the historical monument.⁶⁵⁸ In addition, BASF Mexicana requested an adjustment to the technical procedures for restoration of the subsoil at the Facility; in particular, that point samples of pigment-containing material should not be taken, and that only the bottom and walls of the excavation should be sampled, since in its opinion point sampling “does not provide data for decision-making on restoration of the area.”⁶⁵⁹ In relation to the procedures for sampling of the pigments found in the offices and restrooms area (area 15),⁶⁶⁰ BASF Mexicana proposed that the authority take two reference samples at different points, but specified that “chemical analysis of heavy metals will not be performed [...] since sufficient information is already in hand.”⁶⁶¹

ii. Activities subsequent to the modification of the restoration plan of 8 October 2001

295. On 8 October 2001, the DGII, further to consultation with the Technical Support for Inspections Division (*Dirección de Apoyo Técnico a Inspecciones*), ordered the commencement of the work plan for the cleanup of the offices, restrooms, substation, and electrical room areas, emphasizing that the Company would have to take additional samples where ordered to do so by the field inspectors.⁶⁶² Most of the activities were concentrated in the offices area (area 15; see Figure 13). The findings documented by Profepa inspectors subsequent to this decision are presented below.

Figure 13. Detail of area 15 of the Facility and the Adjacent Lot⁶⁸³



296. The inspection noted in record 17-006-0001/98-DV-35 commenced on 25 September 2001. During this inspection, which concluded on 31 October 2001, Profepa documented various findings of pigment and pigment-containing material in the offices area; in addition, the DGII issued a decision modifying the restoration plan so as to allow for adequate documentation of the finding of buried pigments.⁶⁶⁴
297. On 15 October 2001, Profepa documented that “a double concrete floor” had been found in the offices area of the Facility;⁶⁶⁵ that is, the excavations had revealed a concrete surface followed by a stratum of soil and/or pigment-containing material and/or pigment, followed by a second layer of concrete. During the removal of soil and rubble, no pigmentation was observed in the first layer of concrete.⁶⁶⁶ The demolition of the second concrete layer continued the next day in the offices area, uncovering “pigmentation on the soil surface, [and] on the lower surface of the concrete floor.”⁶⁶⁷
298. On 19 October 2001, work continued on removing the “second concrete floor” and it was recorded that “the underside of the concrete and the soil surface show pigmentation in certain areas.”⁶⁶⁸ The removal of the concrete and the finding of pigmentation on the second concrete floor in the offices area was further documented on 20 and 22 October 2001.⁶⁶⁹ In addition, the presence of pigmentation on the soil surface was documented in areas 1 and 2 of the offices area,⁶⁷⁰ while the following finding was made in the pit of sub-area 1:

... During the excavation of the pit, a pigment stratum was observed on the four walls of the pit from 13–40 cm depth and the pigment was observed to be more concentrated on wall 1 and part of wall 2, while in the rest of the pit it was observed to be more dispersed through the soil ...⁶⁷¹

Given this situation, the Profepa inspector ordered that a point sample of concentrated pigment be taken on wall 2.⁶⁷²

299. The same day, excavation began on a pit in the offices area (sub-area 2) where pigmentation of the soil was observed on the surface of the pit and on the three walls; a pigment sample was therefore taken.⁶⁷³ The inspector stressed that “the red and yellow pigment is concentrated in the form of a stratum 0.30 m thick and is only found dispersed on the surface of the current soil level.”⁶⁷⁴ The next day “a stratum of concentrated pigment 0.25 m thick” was found in conjunction with the discovery of a drain crossing the offices area, and Profepa therefore ordered that a point sample be taken.⁶⁷⁵
300. This situation was documented again on October 24 in sub-area 2 of the offices area, when a pigment stratum was found at 0.20-0.30 m and a concentration below 0.30 m was observed in certain areas, and five point samples were therefore taken.⁶⁷⁶ Meanwhile, in sub-area 1 of the offices area, pigmentation was observed in the form of strata at 0.20–0.30 m and it was noted that “pigment occurs here only in the backfill and not in the natural soil.”⁶⁷⁷ The removal of pigment-containing soil from sub-areas 1 and 2 of the offices area continued until 25 October 2001.⁶⁷⁸

Photo 5. Stratum in the offices area⁶⁷⁹

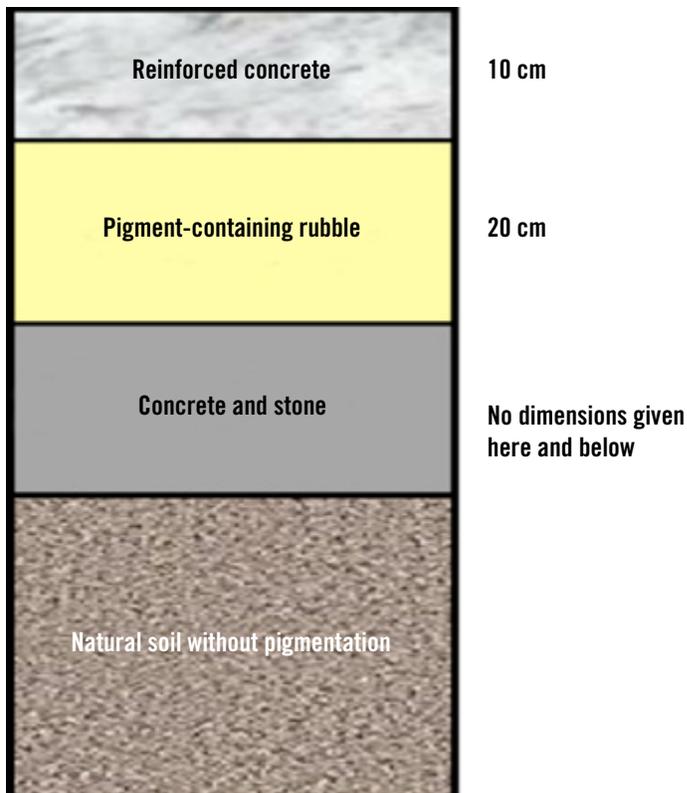


301. The various findings recorded by Profepa are summarized in the following description from 26 October 2001:
- ... sub-area 1 measures 15.90 m x 6.15 m, and three-fourths of it was observed to exhibit pigmentation on the soil surface in the form of strata 0.20–0.30 m thick; sub-area 2 measures 6.20 m x 3.80 m, and so far more than one-fourth of it has been observed to exhibit surface pigmentation in the form of a stratum 0.20–0.30 m thick. It should be noted that the offices area will be excavated to a depth of 1 m.⁶⁸⁰
302. On 27 October, the removal of pigment-containing soil from sub-areas 1 and 2 of the offices area was officially recorded,⁶⁸¹ and “light pigmentation in the form of clumps on the soil surface and the lower surface of the concrete floor” was documented in the milling and laboratories area. In addition, it was noted that “backfill is found under the concrete ... apparently from the hacienda itself.”⁶⁸² In addition, a finding in area 24 of the Facility is noted:

... during the cleanup of this area, a pigment stratum dispersed through the soil was found in an area 1.90 m long by 0.80 m wide by 0.80 m high, under wall 3, i.e., the pigment was detected at a depth of 1.50–2.30 m below floor level.⁶⁸³

303. The inspection record in this regard specifies that “a pigment-containing soil sample was taken, identified, and labeled as A4-S24(2)P3 (point)”⁶⁸⁴ being one of the few point samples that were taken of pigment or pigment-containing material. A similar situation was detected in the precipitation area (area 24), since “in one of them pigmentation was observed down to a depth of 2.82 m.” However, in the case at issue point sampling was not performed, since this would not be done “until the area is cleaned up ... to a depth greater than 3 m.”⁶⁸⁵
304. On 29 October 2001 the procedure continued without turning up any facts falling within the scope of this factual record; however, for no apparent reason, the numbering of the inspection record was changed.⁶⁸⁶
305. On 30 October 2001, excavation began on four pits in the offices and restroom area,⁶⁸⁷ and the following was noted:
- ... after the concrete floor was removed, light pigmentation was observed in the form of clumps on the soil surface (pit). In the course of excavating the pit at the south end of the concrete floor, the floor was observed to be in reinforced concrete 10 cm thick; below the floor was a layer of pigmented rubble 0.20 m thick and below this layer was another concrete and stone floor. This last was removed in order to continue with the excavation. Below it was the soil surface.
306. Thus, this finding possessed the following overall soil profile:

Figure 14. Soil profile of the finding documented on 30 October 2001⁶⁸⁸



307. Another pit was excavated on the north side of the concrete floor, but this one was in the handling yard. During the excavation, Profepa documented that “a pipe 0.70 m high by 0.30 m wide filled with tezontle mixed with pigment was found on wall 4,”⁶⁸⁹ and this situation was described again the next day.⁶⁹⁰ The authority ordered a point sample to be taken for CRETI analysis.⁶⁹¹ It is stated at the end of the record of 30 October 2001 that “this sampling was done for the purpose of environmental characterization of these two areas.”⁶⁹²
308. On October 30 a finding of buried pigments and pigment-containing material was documented as follows:
- The pit in sub-area 3 of the offices and restrooms area, located in the restrooms, was observed to be filled down to a depth of 1.50 m with backfill (concrete floor and burned refuse) mixed with pigment, as well as pigment-filled bags.... It should be noted that the pigment-filled bags are at depths of 1.20–1.50 m, i.e., their thickness is 0.30 m.⁶⁹³
- A point sample of pigment was taken.⁶⁹⁴
309. The preceding paragraph documents the last finding in inspection procedure 17-006-0001/98-D-V-35, which concluded on 31 October 2001.⁶⁹⁵
310. On 1 November 2001, BASF Mexicana applied to Profepa for “approval of a six-month extension of the deadline, as from 6 November of the current year, for completion of cleanup of the Factory [i.e., the Facility].”⁶⁹⁶ On November 5, inspection record no. 17-006-0001/98-D-V-36 was opened for the purpose of supervising the environmental restoration work.⁶⁹⁷ The beginning of the record documents that on 5 November, BASF Mexicana continued removing pigment-containing soil from sub-areas 1 and 2 of the offices and restrooms area.⁶⁹⁸ This activity continued from 6 to 9 November 2001.⁶⁹⁹ On the last day, the inspector documented in the record that “pigment is no longer observed in the soil.”⁷⁰⁰ Nevertheless, on 10 and 12 November the removal of pigment-containing soil from sub-area 1 of the offices and restrooms area continued down to a depth of 1 m.⁷⁰¹ On 13 November, it was documented that what was being removed was “earth,” without specifying whether it contained pigment.⁷⁰²
311. On 14 November 2001, a new finding of buried pigments was made at two points of the offices and restrooms area:
- ... in the course of the excavation work in certain office areas, a surface layer of yellow pigment was observed, with a thickness of approximately 25–30 cm; in addition, excavation continued in the restrooms area, where a pigment layer approximately 50–80 cm thick was found at a depth of 1.5 m; this area was excavated and yellow pigment was removed along with plastic bags bearing a cloverleaf logo and the legend: “25 kg NETO.; GRETA; AMARILLA; PRODUCTOS DE ZINC Y PLOMO, S.A.; APDO. 1310 MEXICO, DF; HECHO EN MEXICO.”⁷⁰³ [Emphasis added.]
- In this case, random sampling rather than point sampling was performed. The samples were taken from the mounds of excavated earth.⁷⁰⁴
312. The excavation work on the offices area continued on November 15⁷⁰⁵ and the next day in the restrooms and cafeteria area and in the area that served as a kitchen for the workers, where yellow pigment was observed adjacent to the concrete.⁷⁰⁶ Sampling was performed on the mounds of earth.⁷⁰⁷
313. On November 17, 21, 22, and 23 of 2001, the concrete was broken up and the earth below was excavated to a depth of 1 m in the restrooms, offices, and cafeteria area.⁷⁰⁸ On 24 November 2001, it was documented that “excavation to a depth of 1 m was completed in the offices area, and it is now planned to sample the bottom and walls.”⁷⁰⁹ In addition, work began on breaking up the concrete floor at the entrance to the offices, hallway, and stairs, just in front of the milling and laboratories area.⁷¹⁰

314. The next day, 25 November 2001, the following finding was recorded in the restrooms area:

The excavation work in the restrooms area continues, noting the presence of pigment at 80 cm depth, as well as the presence of plastic bags, some containing yellow pigment and others empty, bearing the following legend: “25 kg neto; GRETA AMARILLA; PRODUCTOS DE ZINC Y PLOMO, S.A.; APDO 1310 MEXICO D.F.”⁷¹¹

The material was stored in mounds for sampling.⁷¹² Two days later, sampling was performed on the bottom and walls of the excavation in the offices area.⁷¹³ The yellow pigment found was not sampled. Photo 6 is an example of what was found buried in Area 15.

Photo 6. Bag of pigment⁷¹⁴



Note: The photograph shown here, according to its author, corresponds to one of the findings of buried pigment in the offices area during November 2001.

315. On 28 November 2001, the Profepa inspector emphasized in his inspection record the existence in the restrooms area of “a considerable area exhibiting the impact of yellow pigment, such that point sampling is hereby ordered.”⁷¹⁵ The next day, the presence of pigment in an area of approximately 1 m² was documented at a depth of 60–80 cm.⁷¹⁶ The excavation work continued until 30 November, when it was documented that “the backfill [in the employees’ cafeteria area] was composed of stone, and [that] under the backfill is what appears to have been a pit or tank that may have been used for wastewater treatment, whose walls exhibit pigmentation.”⁷¹⁷

Photo 7. Excavation in the offices area⁷¹⁸



316. On 1 December excavation work continued in the employees' cafeteria area and at the entrance of the hallway leading to the office as well as at the entrance to the milling and laboratories area, without documenting any facts relating to a finding of pigments or pigment-containing materials.⁷¹⁹ On 5 December 2001 inspection record no. 17-006-0001/98-D-V-36 was closed.⁷²⁰

iii. Findings and restoration work on the Adjacent Lot, May-June 2002

317. This section documents various findings on the Adjacent Lot during the assessment and dismantlement of the historical, industrial, and restroom drains. In addition, it discusses the circumstances that led the owner of the Adjacent Lot to object to the completion of the work. Figure 15 presents an overview of the areas where the findings occurred.

Figure 15. Findings on the Adjacent Lot⁷²¹



Shading
Brown: Facility
Blue: Adjacent Lot (common area)
The white boxes surrounding area 21 and area 15 indicate the sites where the findings were made.

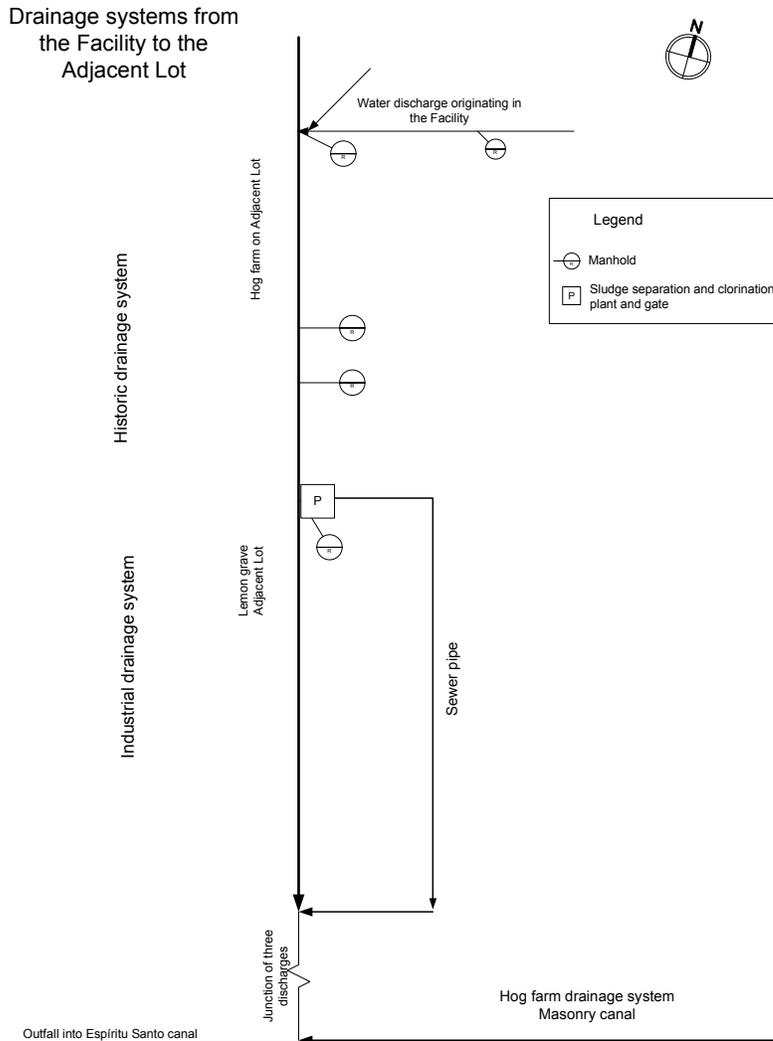
318. On 15 May 2002 the Pollution Source Inspection Branch (*Dirección General de Inspección de Fuentes de Contaminación*–DGIFC; until 2002 known as the DGII) issued a decision in file no. B-0002/775 approving a workplan for the Adjacent Lot.⁷²² The work consisted of the removal of the industrial drain and soil in areas 15 and 21, as well as characterization sampling for the drain’s area of influence.⁷²³ The same day, the DGIFC requested approval from the owner of the Adjacent Lot to carry out this program; the owner, through his legal counsel, informed the DGIFC that “in order to avoid the risk of loss of evidence, he is currently of the view that it would be inadvisable to allow access to the premises in order to carry out the work of removing material and sampling.”⁷²⁴ On 11 June 2002, the DGIFC informed the PGR of this situation.⁷²⁵
319. On 20 May 2002, procedures were begun to remove the industrial drain and soil from areas 15 and 21 of the portion of land encompassing the Adjacent Lot.⁷²⁶ During the visit to identify the area of the historical and industrial drain to be dismantled, the owner of the Adjacent Lot consented to work being done within a 2.5-m-wide strip on either side of the drain, located in the area adjacent to the employee restrooms and the administrative offices of the Facility (area 15).⁷²⁷
320. During the initial visit, the owner of the Adjacent Lot stated that if the activities to be carried out on his premises did not adhere to what had been agreed when the inspection record was initially drawn up, he reserved the right to suspend the work.⁷²⁸ The visit included area 21, located next to the wastewater treatment plant.⁷²⁹ In addition, Profepa agreed with the owner of the Adjacent Lot on the use of areas of his property during the work⁷³⁰ and on the work schedule,⁷³¹ and moreover the work areas were marked out with posts, string, and plastic tape to prohibit entry.⁷³² During the latter procedures, it was noted that the exterior industrial drain consisted of a concrete pipe, a septic system, and a restroom drain and that it was connected to the historical drainage system from the Facility.⁷³³
321. On 22 May 2002, during the excavation work on the area where the Facility’s restrooms were located (area 15), clumps of pigment were identified in the restroom drain inspection hole,⁷³⁴ which was connected to the historical drain.⁷³⁵ Although sampling was performed, it did not comprise sampling of this pigment.⁷³⁶ During the removal of the drain and septic system of the restroom drainage system, an attempt was made to locate the walls of the wastewater canal, and two canals were found “above it,” although it was clarified that the plans were unavailable.⁷³⁷ In addition, during a tour of the Adjacent Lot on 27 May, the following was reported:

... we walked along the historical drain from the lemon grove to the point of treatment, sludge separation, and chlorination, and from there to the outfall into “Espíritu Santo” canal. At this outfall into the Espíritu Santo, three water discharges come together: one coming from the sludge separation and chlorination plant, which, after treatment, is routed through sewer pipes towards the south wall of the Hacienda and subsequently along an open canal to the junction with the “Espíritu Santo” canal; another water discharge not passing through the sludge separation and chlorination plant, routed through sewer pipes (identified as industrial drain) to the junction with the “Espíritu Santo” canal; and a third wastewater discharge coming directly from the farrowing area of the hog farm, which is routed through a masonry canal without going through the sludge separation and chlorination plant. Three cleanouts, possibly containing sediment or sludge, were identified in the drain coming from the sludge separation and chlorination plant.⁷³⁸

The cleanouts are found in the piped part of this (historical) drain.⁷³⁹ In addition, it is noted that “several water discharges from the Factory” were found connected to this drain.⁷⁴⁰

322. Figure 16 provides a visual description of the above cited report of the site inspection:

Figure 16. Drainage system of Ex Hacienda El Hospital⁷⁴¹



Note: This diagram is not to scale.

323. The excavation of the historical and restroom drains and the septic system continued without objection on the part of the owner of the Adjacent Lot, who visited the site sporadically “without manifesting any objection.”⁷⁴² However, this work ultimately met with opposition from that owner, as discussed below.

324. On 31 May 2002, during sampling event no. 2 located behind the restrooms and offices area of the Facility (area 15), the following was noted:

... in the course of the drilling, the presence of yellow pigment was detected at the tip of the penetrometer or sampler, at a depth of 0.60–1.20 m; as the drilling continued, pigment was again observed at the tip of the drilling equipment, this time at a depth of 1.20–1.80 m ...⁷⁴³

Point sampling of this finding was conducted by BASF under Profepa directions.⁷⁴⁴

325. Demolition of the septic system, into which water from the Facility's restrooms had been discharged, located in the handling yard behind the restrooms and offices area but inside the Adjacent Lot, began on 4 June 2002.⁷⁴⁵ That same day, the owner of the Adjacent Lot expressed his disapproval, since "he was unaware of the existence of this septic system," which had been built without his approval.⁷⁴⁶ From that time on, the inspection record notes the owner's continued opposition to the restoration work.
326. It was noted on 5 June 2002 that the markings put in place to delimit the work area had been removed and that the owner of the Adjacent Lot had replaced them with bamboo stakes and barbed wire.⁷⁴⁷ In addition, the owner stated that "he disapproved of both the excavation taking place on his property and the demolition of the septic system," and requested that the work be suspended in order to retain a notary to take an affidavit of the facts.⁷⁴⁸ The only samples taken were of water from the septic system, among other minor tasks.⁷⁴⁹
327. On 10 June 2002, the owner of the Adjacent Lot was asked for his permission to continue with the demolition of the septic system. He refused, stating that "the 5-meter-wide area previously delimited was being exceeded",⁷⁵⁰ for this reason, the work was interrupted from that day until 20 June 2002.⁷⁵¹ On 17 June 2002, the owner of the Adjacent Lot stated that "he cannot allow the work to continue, since he was never apprised that BASF Mexicana, S.A. de C.V. built the septic system found on his property without his approval."⁷⁵² He persisted in his opposition "until his attorneys are present on his property so that together they may make decisions aimed at assessing the situation and approving cleanup and sampling activities for areas 15 and 21 and for the industrial and historical drain."⁷⁵³
328. On 20 June 2002, in the presence of public broker (*corredor público*) no. 2 who drew up an affidavit of the facts,⁷⁵⁴ the owner of the Adjacent Lot consented to the continuation of work on the restoration plan for the areas of influence of the industrial drain, and on the demolition of the septic system.⁷⁵⁵
329. On 21 June 2002, the owner of the Adjacent Lot was informed that work needed to be done in a 20 x 20 m area in front of the offices. The owner objected, due to the existence of a civil proceeding and an agreement with Profepa covering the use of the areas⁷⁵⁶ (see section 7.5), and work therefore continued only on demolition of the septic system and removal of the restroom drain connected to this septic system.⁷⁵⁷ Once work on the septic system and drain was completed, sampling was performed.⁷⁵⁸
330. On 21 June 2002, the indefinite suspension of restoration work on the Adjacent Lot, in particular in the area bordering on the offices (area 15) and the wastewater treatment plant (area 21), was documented.⁷⁵⁹
331. On 26 July 2002, the DGIFC found that the environmental restoration work relating to the Facility had been completed and that the measures pertaining to the Adjacent Lot remained pending.⁷⁶⁰

11.3 Resumption and suspension of work on the restoration plan for the Adjacent Lot (2003–2005)

332. On 3 July 2003, the owner of the Adjacent Lot manifested his "complete and total agreement" to allow the removal of the industrial drain, but requested that "the physical space strictly necessary" for the performance of the dismantlement work "be clearly delimited in advance."⁷⁶¹ On 31 August 2004 Profepa issued a decision ordering BASF Mexicana to comply with the pending corrective and cleanup measures, finding that "it was not discharged of its responsibility to comply with the remediation plan [i.e., the restoration plan]" of 20 July 2002.⁷⁶² The decision contained various corrective measures involving the dismantling of construction features on the Adjacent Lot, the desilting of the historical and industrial drain, and sampling.⁷⁶³

333. On 21 and 29 September 2004, BASF Mexicana manifested its “disagreement with and rejection of” the measures that had been ordered on 31 October 2004. On 18 January 2005, it stated to Profepa that, pursuant to LGEEPA, even if pigment-containing material persisted, “it does not in any way represent harm to the environment or ecological instability and it is therefore legally invalid to suppose or presume the existence of environmental contamination” on the Adjacent Lot.⁷⁶⁴ The Company based its position on two expert reports that concluded, respectively, “there is no contamination ... although pigment-containing materials were found in small, circumscribed areas”⁷⁶⁵ and “there are heavy metals on some sites identified, although this does not imply contamination.”⁷⁶⁶ The Company further argued that Profepa had characterized the wastes *a priori* as hazardous without observing the provisions of NOM-052.⁷⁶⁷ In addition, the Company requested that Profepa present an “alternative plan” to afford legal certainty should the owner of the Adjacent Lot object to the restoration work.⁷⁶⁸
334. On 25 February 2005, Profepa issued a decision clarifying that the procedural stage reached at the point was not one at which to determine the existence or degree of environmental contamination, but rather one involving the completion of the pending measures.⁷⁶⁹ In addition, the environmental authority clarified that enforcement of the decision of 31 October 2004 “is not subject ... to the conditions which the company seeks to establish unilaterally.”⁷⁷⁰ In response to BASF Mexicana’s objection to the effect that wastes had been characterized *a priori* as “hazardous,” the DGIFC established characterization measures for materials deriving from the excavation, from sediments taken from the historical and industrial drain, and from demolition of soil in contact with industrial drains, thus conforming methodologically to NOM-052.⁷⁷¹
335. On 29 April 2005, the DGIFC established that the pending restoration work on the Adjacent Lot would commence on 9 May 2005,⁷⁷² and on that day procedures were initiated and inspection records DGIFC-AI-MOR.-025/2005⁷⁷³ and DGIFC-AI-MOR.-026/2005 were drawn up.⁷⁷⁴ During the procedures, the existence – in area 21 and in the industrial drain – of a total of seven excavations and eight mounds of earth that had not been ordered or authorized by Profepa was documented, as was the fact that the plastic that should have been found covering the bottom of another excavation – this one ordered by Profepa – was missing.⁷⁷⁵ During the procedure, the executor of the late owner of the Adjacent Lot, Roberto Abe Almada, the Submitter of SEM-06-004, was present.⁷⁷⁶
336. On 11 May 2005, a new inspection, documented in record no. DGIFC-AI-MOR.-028/2005, commenced. On 13 May 2005, the work in area 15 was delimited in the following manner: one area 15 m long and another 13.01 m long, both 5 m wide (see Photo 8):

Excavation and removal of soil began in sub-area 1 [to the west], where, on the southwest side, light green/yellow pigment was observed at the time of the excavation at a depth of 20 cm.⁷⁷⁷

The record does not indicate whether sampling was performed on the finding. The material found was packed in plastic bags and stacked for storage in area 15.⁷⁷⁸ The materials uncovered during the excavations in area 15 were placed in bags and stacked until the end of the procedure. As noted below, the inspection was suspended on 21 May 2005; reopened on 23 May 2005 and indefinitely suspended on 31 May 2005. The information gathered by the Secretariat shows the opposition by the owner of the Adjacent Lot and the suspension order of the Municipality of Cuautla for lack of the applicable permit.

Photo 8. Area 15 next to the offices⁷⁷⁹



337. During the excavation of area 15 (sub-area 1), bright yellow pigment was observed at a depth of 20 cm.⁷⁸⁰ On 18 May 2005, the presence of consolidated pale red pigment was documented in area 15 (sub-area 2) at a depth of 10 cm, over an area measuring 1 m x 70 cm. The material was packing in plastic bags.⁷⁸¹ BASF Mexicana's representative at the site stated in the inspection record that on 19 May 2005, the executor of the estate of the late owner of the Adjacent Lot had did not allow access to the equipment needed to continue with the activities⁷⁸² and that on 20 May 2005, the same person (allegedly Roberto Abe Almada) ordered personnel hired by the Company to leave the work site and that allegedly, "as long as there is no commercial settlement between BASF Mexicana, S.A. de C.V. and the [executor], he will not cooperate in any way with the performance of the work."⁷⁸³ This situation led to the inspection record being suspended on 21 May 2005.⁷⁸⁴
338. On 23 May 2005, a new procedure took place—the opening of a new inspection report—to supervise the cleanup on the Adjacent Lot; during this procedure, the packing of the excavated material in bags was documented.⁷⁸⁵ In addition, the goal was established of excavating to a depth of 1 m in area 15 (sub-areas 1 and 2) on the Adjacent Lot.⁷⁸⁶
339. Architectural features were found during the procedures in areas 15 and 21 (next to the chapel).⁷⁸⁷ The inspection record documents the following relevant finding:

During the excavation work in the area of influence of the chapel identified as sub-area 2, in addition to the aforementioned historical drain, a circular concrete industrial drain was detected, with an inner diameter of 15 cm and an outer diameter of 20 cm, showing clear signs of yellow pigment inside the drain.⁷⁸⁸

During the procedure, soil samples were taken at points 30 cm to each side of the duct as well as at another point 30 cm underneath it.⁷⁸⁹ Further down, the record also notes the following:

... in the course of the excavation work in sub-area 1 of area 15, yellow pigment was detected at a depth of approximately 80 cm at floor [i.e., the bottom] of the excavation, near the west boundary of this sub-area close to the perimeter wall abutting the street....⁷⁹⁰

The material found was packed in polypropylene bags.⁷⁹¹

340. In addition, it was decided during the procedures to extend the excavations both within the area of influence of the chapel and in area 15 (sub-areas 1 and 2) because of the finding in these areas of material containing yellow and red pigment.⁷⁹² A compound sample was taken from the material contained in the polypropylene bags.⁷⁹³
341. On 30 May 2005, an employee of the owner of the Adjacent Lot stated that he had been instructed not to allow access to persons not appearing on the list dated 11 May 2005 that had been produced during a procedure.⁷⁹⁴
342. On 31 May 2005, the Public Works Department of the Municipality of Cuautla suspended the cleanup for lack of permission to carry out the excavations.⁷⁹⁵ The representative of BASF Mexicana stated verbally that the work had been interrupted on various occasions at the instructions of the owner of the Adjacent Lot.⁷⁹⁶ Inspection record DGIFC-AI-MOR.-029/2005 was closed on 31 May 2005.⁷⁹⁷
343. During the clean-up procedures, the packing of the excavated material in 3,603 polypropylene bags with a capacity of 50 kg, each containing approximately 0.07 m³ of material, for a total of 252.2 m³, was documented.⁷⁹⁸
344. Following the inspection visit on 31 May 2005, there is no record in the administrative file available to the Secretariat of any restoration work and/or pigment removal being carried out on the Adjacent Lot, now held in trust by the Public Charity (*Patrimonio de la Beneficencia Publica*) subject to the departure of the persons who have been occupying it.⁷⁹⁹
345. On 13 December 2005, Profepa issued the administrative decision whereby the Company was fined.
346. Nearly a year after the last inspection visit of 31 May 2005 to the Adjacent Lot, in a decision of 20 April 2006 on the administrative review action filed by BASF Mexicana, the following appears:

... the corrective measures ordered in the aforementioned decisions[800] are pending, since as appears from the official documents in the file in question, they resumed on 11 May 2005 and were suspended on 31 May 2005, and it has to date been impossible to complete them for the reasons set out herein below: as appears from various documents submitted by the company as well as from acts of this Office and from public and private documentary evidence in the file from Roberto Abe Domínguez and Roberto Abe Almada, ... they repeatedly and by various means objected to and prevented the company BASF MEXICANA, S.A. de C.V., from applying the corrective measures ordered by the Office of the Federal Attorney for Environmental Protection.⁸⁰¹

347. The removal of the bags containing excavated materials from area 15, the completion of these excavations, the desilting of drains, and the completion of the cleanup of area 15 of the Facility were left pending. If BASF Mexicana did carry out these tasks, it did not do so in the presence of the environmental authority.

11.4 Measures taken by BASF Mexicana subsequent to 31 May 2005

348. During the preparation of the factual record, the Secretariat took into consideration factual information provided by BASF Mexicana in relation to measures taken subsequent to the suspension of activities on 31 May 2005.⁸⁰² On 4 April 2013, BASF Mexicana submitted a report to the Secretariat which purpose was to:

Supervise the cleanup of the facilities in such a way that the building may be used for new activities compatible with the existing land uses, with application of the applicable environmental law.⁸⁰³

349. The latter BASF Mexicana report delivered to the Secretariat states that the following work would take place:
- Removal of the industrial drain installed by the Company ...
 - Cleanup of the areas of influence of the industrial drain ...
 - Desilting and cleanup of the historical drain⁸⁰⁴
350. The company TOR-NOR, S.A. de C.V., performed the cleanup, which included the removal of the industrial drain installed by BASF, the cleanup of the areas of influence of the industrial drain and areas adjacent to the Facility where concentrations of heavy metals were detected, and the desilting and cleanup of the historical drain.⁸⁰⁵
351. For the determination of the hazardousness of the wastes generated during the activities, the values given in NOM-052 and NOM-053 were used.⁸⁰⁶ To determine the soil contamination characteristics, the limits established by NOM-147-SEMARNAT/SSA1-2004 were used.⁸⁰⁷
352. Once the removal and cleanup work was completed, soil sampling took place in area 15, the hoses area, the area south of the chapel, area 21, the planting beds area, sections 1 and 2 of the industrial drain, and the rear part of the homestead in the ruins area. In addition, sampling of the floors and walls of the inside of the historical drainage system was performed.⁸⁰⁸ The analysis reflected that heavy metal concentrations were below the selected reference criteria.⁸⁰⁹ The appendices to the document consulted by the Secretariat contain plans showing the location of the samples taken and tables summarizing the analytical results;⁸¹⁰ however, the laboratory that was in charge of sampling and analysis is not indicated.
353. The report in question was not submitted to the environmental authorities.⁸¹¹ As discussed in section 7.6 of this factual record, on 22 May 2007 the measures implemented by Profepa were struck down by the Fifth Regional Chamber of the TFJFA.⁸¹²
354. The document does not mention final disposal activities for the 3,603 polypropylene bags containing materials from the excavations.⁸¹³

12. Enforcement of CPF Articles 415 paragraph I, 416 paragraph I, and 421 as in force prior to 6 February 2002

12.1 Introduction

355. The Submitters assert that Mexico is failing to enforce CPF Articles 415 paragraph I, 416 paragraph I, and 421.⁸¹⁴ Mexico's Response maintains that, as manifested by Profepa, it is not permitted to provide information contained in criminal investigations pursued in connection with facts that may have constituted environmental offenses.⁸¹⁵
356. CPF Article 415 paragraph I as in force prior to 6 February 2002 provides that:

Anyone who does the following is liable to a prison term of three months to six years and one thousand to twenty thousand days' fine:

- I. Engages in any activity with hazardous materials or wastes that causes or could cause harm to public health, natural resources, fauna, flora, or ecosystems without the authorization of the

competent federal authority or in violation of any terms under which such activity may have been authorized....⁸¹⁶

357. CPF Article 416 paragraph I as in force prior to 6 February 2002 provides that:

Anyone who does the following without any approval that may be applicable or in violation of the legal or regulatory provisions or Mexican official standards is liable to a prison term of three months to six years and one thousand to twenty thousand days' fine:

- I. Discharges, dumps, or allows to seep, or authorizes or orders the discharge, dumping, or seepage of, wastewater, chemical or biochemical liquids, refuse, or contaminants in soils, marine waters, rivers, basins, ponds, or other bodies of water or watercourses under federal jurisdiction that cause or may cause harm to public health, natural resources, flora, fauna, the quality of water in watersheds, or ecosystems....⁸¹⁷

358. CPF Article 421 specifies that, without prejudice to the foregoing provisions, the judge may impose one or more of the following penalties:

- I. The taking of the measures necessary to restore the natural elements making up the affected ecosystems to the condition they were in before the offense took place;
- II. The suspension, modification, or demolition of any structures, works, or activities, as the case may be, that may have given rise to the environmental offense in question;
- III. The reintroduction of the natural elements, specimens or species of wild flora or fauna into the habitat from which they were removed, provided that their reintroduction does not pose a threat to ecological stability or impede the reproduction or migration of wild flora or fauna species; and
- IV. The return of the hazardous materials or wastes or specimens of threatened or endangered wildlife species to the country of origin, with adherence to the stipulations of international treaties and conventions to which Mexico is a party.

For the purposes to which this article refers, the judge shall request the issuance of the appropriate technical report from the competent federal body or from institutions of higher education or scientific investigation....⁸¹⁸

359. On 27 November 2001, the PGR enforced a seizure order whereby it took possession of the Facility.⁸¹⁹ The next day the PGR granted possession to Roberto Abe Domínguez, who in turn transferred it to BASF Mexicana under a leasing contract.⁸²⁰ Profepa clarified that it reserved the right to audit the restoration plan and any sampling that had taken place.⁸²¹

360. The next section reports on two criminal investigations pursued by the PGR in which it investigated the possible commission of environmental offenses in connection with the matters discussed in the Consolidated Submissions.

12.2 Criminal investigation 6243/FEDA/98

361. On 10 May 2013, the Legal and International Affairs Office of the PGR, gave notice that a session of the information committee of that institution had "confirmed the non-existence of criminal investigation 6243/FEDA/2013"⁸²² However, after various requests filed by BASF Mexicana before PGR, the Secretariat had access to a copy of the criminal investigation summarized below.⁸²³

362. The information consulted by the Secretariat indicates that a criminal investigation was conducted. Initiated by the PGR's investigating agency in Cuautla, Morelos, said investigation was subsequently pursued by the Office of the Special Attorney for Environmental Offenses in Mexico City. The information consulted sheds light on the investigation into the relevant facts and describes probable criminal liability in relation to the offenses specified in CPF Articles 415, section I, and 416, section I, regarding the alleged contamination of the Facility with heavy metals. The information consulted includes records of various PGR investigations up to 26 August 1999, the date the PGR took receipt of 209 samples from different parts of the Facility. From that date forward, the PGR's investigations were suspended. Consequently, on 31 January 2008, the PGR's Special Unit for Investigation of Federal Offenses determined that the offense had expired under the statute of limitations on 12 October 2002. Nevertheless, according to the information consulted by the Secretariat, nearly 60 procedures were carried out between 26 August 1999 and 12 October 2002, the date the offense expired.
363. On 6 February 1998, the PGR's sole investigating agency based in Cuautla, Morelos, initiated preliminary investigation 6243/FEDA/98 in response to the complaint of 12 January 1998⁸²⁴ in which it was asserted that the Company caused damage to the environment and the Facility due to: 1) its management of salts, oxides and contaminating materials, used to manufacture paint; 2) the production and distribution of organic and inorganic pigments containing chromate and lead molybdate (chromium and lead); and 3) the manufacture of related chemical products.⁸²⁵ The complaint also emphasized that the Company emitted, gave off and discharged gases, smoke, and dust into the atmosphere, as well as discharged wastewater, and chemical or biochemical liquids, apparently into the Espíritu Santo Creek.⁸²⁶ Such acts are classified as punishable offenses under CPF Articles 415, section I, and 416, section I.
364. During the preliminary investigation conducted by the investigating agency in Cuautla, Morelos, the accused appeared before the PGR and environmental experts were designated to assess the damage caused at the Facility. Said experts did, moreover, visit the site in question. Furthermore, the INAH determined that the Ex-Hacienda is an historic monument and thereby subject to the provisions applicable to historic monuments. The execution of any works would require the authorization of the INAH office in Morelos. The PGR's investigating agency in Cuautla ordered the total temporary shutdown and seizure of the facility in question. It then gathered statements and officially accepted evidence against the Company. It also received a technical report from the Ministry of Health, which indicated "the possible health risks, as said results [...] exceed some contaminant parameters, such as soil lead levels."⁸²⁷ The investigating agency also received the analytical results regarding the blood lead levels of El Hospital residents.⁸²⁸
365. On 11 September 1998, the Special Attorney for Environmental Offenses asserted his jurisdiction over preliminary investigation 6243/FEDA/98. This file then passed from the hands of the investigating agency in Cuautla, Morelos, to the Special Attorney's office.⁸²⁹
366. The technical report issued by Profepa (see section 9.3 of this factual record) highlighted the following environmental issues: the discovery of hazardous waste which should have been sent to an authorized company for recycling or final disposal; water stored in tanks that required characterization pursuant to NOM-001-ECOL-1996⁸³⁰; and pigment impregnated floors and walls. The Profepa expert deemed it pertinent to conduct sampling in accordance with NOM-052 and to elaborate a sampling plan to determine the extent of contamination at the Facility, should analyses indicate toxic parameters exceeding this standard's permissible limits.⁸³¹
367. The Special Attorney for Environmental Offenses' investigations concluded that the Facility is a historic site.⁸³² The Special Attorney also conducted other actions including: taking receipt of a study conducted by Laboratorios ABC Química Investigaciones y Análisis S.A de C.V., which determined that the samples taken from the Espíritu Santo Creek did not exceed the maximum permissible limit established under NOM-052; taking cognizance of the administrative proceeding implemented by Profepa's DGI⁸³³; and receiving the technical report on water quality issued by Conagua, which concluded that "there exists no contamination impacting the body of water with heavy metals."⁸³⁴ The Special Attorney also received a Profepa technical report, which indicated that:

... it can be determined that the contamination of the facility ... which is found in the soil, walls and groundwater is a consequence of the industrial activities ..., as there was improper management of materials (both raw materials and manufactured products) and hazardous wastes containing lead, zinc, barium, cadmium, arsenic and chromium. This poor management was due to the lack of preventive and corrective maintenance of installations.

Moreover:

There is no evidence of harm done to flora and fauna or to the health of the area's inhabitants; however, the poor management of the hazardous waste generated by the company's processes could possibly have caused such harm.⁸³⁵

368. Similarly, the Special Attorney received an addition to the abovementioned Profepa technical report, which indicated that:

Based on the aforementioned results it is determined that soil at the sampling points [...] is contaminated with heavy metals due to the presence of lead, cadmium, copper and molybdenum, at levels exceeding Profepa reference criteria.⁸³⁶

369. Furthermore, a public health report produced by a medical expert concluded that:

... both the pigments and the production wastes thereof constituted hazardous waste. Furthermore, according to the sampling results and analysis of the soil, subsoil and groundwater, it has been determined that metals such as lead, chromium, arsenic and cadmium were present at levels exceeding the permissible limits specified by NOM-052-1993, due to the poor management of hazardous waste. This could have caused harm to public health.⁸³⁷

370. On the other hand, the PGR received a technical report from an expert designated by the Company indicating that no harm was done to public health due to production.⁸³⁸ Furthermore, according to a document Conagua communicated to the Company: "the industrial activities ... did not affect the quality of the groundwater or that of the sediments of Espíritu Santo Creek, and the concentrations of heavy metals such as total chromium, hexavalent chromium, lead and molybdenum are under the limits specified by official Mexican standard NOM-127-SSA1-1994 for potable water."⁸³⁹

371. According to the information consulted by the Secretariat, the final procedure completed by the MPF was on 26 August 1999, when it received solid and liquid samples from the Facility. It should be noted that other actions were carried out by the MPF, such as receiving technical reports, issuing agreements, issuing summons, etc.

372. On 5 November 2002, the Director General for Control of Criminal Proceedings (*Director General de Control de Procedimientos Penales*) "A" authorized the suspension of preliminary investigation 6243/FEDA/98⁸⁴⁰ based on Article 131 of the Federal Code of Criminal Procedure (*Código Federal de Procedimientos Penales—CFPP*), until such time as new information materializes.⁸⁴¹ On 12 March 2007, the UEIDAPLE requested the file in order to continue with the preliminary investigation.⁸⁴²

373. Eventually, the Deputy Attorney for Specialized Investigation of Federal Crimes at PGR resolved not to bring criminal proceedings and to file the investigation in light of the expiry of the probable criminal liability of the company BASF Mexicana and its personnel who were the subjects of the preliminary investigation.⁸⁴³ This authority concluded that the offense expired on 12 October 2002, considering that the "last" action took place on 26 August 1999.⁸⁴⁴ Nevertheless, the Secretariat found that the decision not to bring criminal charges also mentions at least 60 procedures subsequent to the supposedly final action. These latter mentioned procedures are detailed in the legal arguments of said decision.⁸⁴⁵

374. The decision not to prosecute includes various pieces of evidence gathered during the investigatory actions on file, which were not considered when determining expiry of the criminal responsibility, as noted in the following quote from the prosecutor in the decision:

Notwithstanding the preceding, from the studies conducted on the documented evidence and the investigatory actions incorporated in the file of investigation number 6243/FEDA/98, it is evident that criminal liability has expired. [In effect,] the criminal conduct that the company BASF Mexicana, S.A. de C.V. may have engaged in – emitting, giving off and discharging gases, smoke and dust into the atmosphere, as well as discharging and permitting the infiltration of wastewater, chemical or biochemical liquids and contaminating wastes into the subsoil of El Hospital and into the Espíritu Santo Creek, thus causing serious harm to both the environment and to the public health of the entire local population – [constituted] a situation which could have made it feasible, as required, for the Representación Social de la Federación [i.e., the MPF] to bring criminal proceedings.⁸⁴⁶

12.3 Criminal investigation 6244/FEDA/98

375. The Secretariat obtained copies of documents relating to the *nolle prosequi* decision further to criminal investigation 6244/FEDA/98, which arose in connection with facts possibly constituting an environmental offense.⁸⁴⁷
376. On 4 March 1998, the MPF office in Cuautla, Morelos received a complaint dated 2 March⁸⁴⁸ and filed by a group of residents of El Hospital in connection with occurrences in March 1997⁸⁴⁹ that possibly constituted an environmental offense, wherein a company operating for some 20 years would be shutting down.⁸⁵⁰ During the dismantlement of the Facility, the employees were apparently informed that “various objects, materials, buckets, and wooden boards” were for sale, and several individuals offered to buy these items.⁸⁵¹ The complainants asserted “that in view of the factory’s activities and the fact that it was handling toxic and corrosive substances, these items should have been confined in special disposal facilities, that contact with these items was harmful, and that they had been deceived.”⁸⁵²
377. The complaint resulted in an investigation by the PGR, in which testimony was taken,⁸⁵³ notarized document no. 17,568 was received, containing an affidavit relating to various sites where contaminated material was allegedly found along with toxic and hazardous waste,⁸⁵⁴ and a letter was submitted to Profepa, along with various receipts issued by the Company “attesting to the sale of contaminated material to the residents.”⁸⁵⁵ Reports of investigations by the Federal Judicial Police (*Policía Judicial Federal*)⁸⁵⁶ were submitted and a document issued by the Profepa officer in the state of Morelos was received, giving notice of the removal of debris dumped by the Company,⁸⁵⁷ as well as an affidavit taking note of the objects in question, drawn up by the MPF officer,⁸⁵⁸ among other documents.
378. In addition, the ministerial authority had access to a technical report of 3 March 1999 issued by the DGII of Profepa, produced by a professional reporting to the Industrial Technical Assistance Branch of Profepa,⁸⁵⁹ which stated:

Conclusions: In reference to the sampling carried out on the premises where the debris and materials from the dismantlement operations were located, these having been dumped, given, or sold by the company... only one result among those reported, from the sample labeled as M-4A, taken from the property of ..., was found to exceed the standard, with a lead concentration of 1643.12 mg/l....⁸⁶⁰

379. Sample M-4A was taken from a property where waste from the demolition of pigment drying ovens, structures, bases, and foundations from process equipment was dumped and was “used for backfill.”⁸⁶¹ In addition, it is stated that the material: was placed “on the unpaved street, and therefore it was unlikely that the residents of this property could have had any exposure through inhalation, ingestion, direct contact, etc.”; and, that the material is not always 100% bioavailable, and that the body’s natural barriers inhibit or delay its absorption into the body.⁸⁶²

380. The Profepa report further suggests that “there exist various factors” that could have affected the differences in the concentrations of the parameters in question, such as the sample size, the conditions at the sampled site, the distribution of the sample at the site, and the sampling procedure.⁸⁶³ The report contends that the discrepancy observable in sample M-4A is due to the fact that it was taken in triplicate as a simple point sample, while in the rest of the samples the material was crushed. The expert therefore concludes that sample M-4A “is completely unrepresentative of the debris as a whole because it was taken as a point sample, unlike the rest of the samples, which were compound.”

381. The expert concludes that “it can be deduced from the results of the samples analyzed that the dumping of this debris could not have caused harms to health, ecological stability, or the environment.”⁸⁶⁴

382. In the course of its investigations, the PGR had access to a medical report which noted:

The sinks and buckets are made of plastic and metal; the majority of them are used to contain water for various uses (washing clothes and utensils, mopping). To a direct question as to whether this water was also used for drinking, all the respondents answered NO...⁸⁶⁵

383. Concerning the way the materials were used, the persons interviewed by the medical expert stated as follows:

most of the metal sheets are found piled up outside the dwelling, others are used as shelves for flowerpots, as is some of the metal shelving. The ladder is found leading from the first to the second stories of the dwelling. The doors are used without modification in the dwellings. Most of the debris was used for grading the land where they live, but all this took place outside the dwelling....⁸⁶⁶

384. The medical expert stated that there is no specific information on the occurrence of birth defects in 1997-98, nor were any cases of blood disease reported.⁸⁶⁷ For these reasons, the medical expert concluded that there were no public health harms.⁸⁶⁸

385. Thus, the MPF found that the review of the file “did not substantiate any environmental offense,” and specifically the offense contemplated in the text of CPF Article 415 paragraph I as in force at that time,⁸⁶⁹ and saw fit to conclude:

In view of the foregoing, and in the opinion of the undersigned, the CONSULTATION ON A *NOLLE PROSEQUI* DECISION is considered to be in order⁸⁷⁰

386. In view of the foregoing, the PGR approved the *nolle prosequi* decision in relation to criminal investigation no. 6244/FEDA/98 for the purposes of closing the file.⁸⁷¹

13. Final note

387. Factual records provide detailed information regarding assertions of failures to effectively enforce environmental laws in North America. The information that forms part of a factual record may assist submitters, the Parties to the NAAEC, and members of the public interested in the matters addressed in the factual record. This factual record draws no conclusions regarding the Submitters' asserted failures by Mexico to effectively enforce its environmental law, nor regarding the effectiveness of Mexico's enforcement efforts.
388. Pursuant to Council Resolution 12-03, this factual record presents factual information concerning the assertions on: 1) the illegal disposal of hazardous waste in the community of El Hospital;⁸⁷² 2) the illegal disposal of hazardous waste at the Facility;⁸⁷³ and 3) the alleged commission of offenses against the environment during the operation, shutdown and dismantling of the plant operated by the company BASF Mexicana S.A. de C.V.⁸⁷⁴
389. Concerning the alleged illegal disposal of hazardous waste in the community of El Hospital, Mexico presented information on the investigations pursued in 1998. Such investigations established that rubble and materials were given and sold to residents of the community and former Company employees,⁸⁷⁵ and that materials were dumped in 42 public use lots in the community of El Hospital, including the rural primary school "Héroes de Chapultepec."⁸⁷⁶ The documentation also describes the domestic use of pigment-containing materials delivered by BASF Mexicana to its former employees and residents of the community of El Hospital.⁸⁷⁷ According to Mexico's information, after the Company was ordered to recover demolition debris from the lots where it had been dumped, it hauled a total of 115 m³ of rubble to a warehouse located at kilometer 106 of the old Cuautla-Oaxaca highway.⁸⁷⁸ Subsequently, on 21 January 1999, Profepa inspectors verified the actions pertaining to the removal and transportation of the rubble and materials located in said warehouse to controlled disposal sites.⁸⁷⁹ This factual record, shows that Profepa imposed fines on BASF Mexicana in the amount of 1,872,000 pesos (US\$176,000 at the then current exchange rate). Subsequently, these fines were declared null and void by the judicial authorities of Mexico, as were the actions of the environmental authority in their entirety.⁸⁸⁰
390. Concerning the alleged illegal dumping of hazardous waste at the Facility, on 20 July 2000, Profepa ordered the implementation of a restoration program for the site in question. During the execution thereof, Profepa inspectors documented the existence of pigments and pigment-containing materials buried at the Facility and the Adjacent Property.⁸⁸¹ With respect to the quantity of pigments found,⁸⁸² the Secretariat found no information corroborating: 1) the sampling of pigments or pigment-containing materials; and 2) analysis of the samples that were in fact taken. It should be noted that in most cases no sampling of pigment-containing materials or pigments was performed as—in compliance with the restoration program proposed by the Company and approved by the environmental authority—the inspector deemed that said materials were found at depths identified as "safe" by the restoration program. Furthermore, as said contaminated materials were to be removed for final disposal, in most cases no records remained of the hazardousness characteristics thereof. The latter fact notwithstanding, in those cases where sampling was indeed done, the resulting analyses were not known.⁸⁸³
391. The discovery of pigment-containing materials or pigments at the Facility and the Adjacent Property led the DGII to modify the restoration program. It determined that point sampling would be used to ascertain the hazardousness characteristics of the materials found.⁸⁸⁴ However, no point sampling was ever carried out due to BASF Mexicana's constant opposition, which method, it argued, did not produce representative samples. In any event, the sampling actually performed was based on a composite methodology, due, it was argued, to the questionable technical and legal validity of point sampling.⁸⁸⁵ During the restoration program, page numbering in one of the inspection reports was modified for no apparent reason.⁸⁸⁶

392. On 26 July 2002, the DGIFC terminated the environmental restoration work at the Facility.⁸⁸⁷ Environmental restoration work at the Adjacent Property initiated in May 2005.⁸⁸⁸ As with the Facility, the inspections at the Adjacent Property documented the discovery of pigment-containing materials.⁸⁸⁹ Of particular note, the latter inspections documented the recovery of 3,603 50-kg polypropylene sacks, used as packaging for excavation materials—including pigment-containing materials. There is no subsequent record of the final disposal site of these materials.⁸⁹⁰ The environmental restoration activities at the Adjacent Property were continuously blocked by the property owner and finally suspended on 31 May 2005 by an order issued by the Municipality of Cuautla (see paragraphs 271 and 342).⁸⁹¹ Nevertheless, BASF Mexicana provided information on actions consisting of the removal of the industrial drain installed by the Company, the clean-up of the areas of influence by said system and the desilting and clean-up of the old drainage system.⁸⁹² Based on the information at the Secretariat's disposal, it is not apparent that any authority was notified of said actions.
393. As this factual record indicates, the actions implemented by Profepa in relation to the disposal of hazardous waste at Ex Hacienda El Hospital were declared null and void by Mexican administrative tribunals, which, moreover, did not rule on the hazardousness characteristics of the materials found at Ex Hacienda based on the *res judicata* argument that this matter had already been adjudicated by a civil court in the Federal District.⁸⁹³
394. Finally, regarding the assertions pertaining to the prosecution of environmental crimes, this factual record discusses two previous inquiries initiated by the PGR, which investigated the possible commission of criminal offenses against the environment arising from the closing of the Facility and the sale of allegedly contaminated materials to local residents and former employees of the Company.⁸⁹⁴ The information consulted by the Secretariat regarding preliminary investigation 6243/FEDA/98 indicates that a criminal investigation was conducted. Said investigation was initiated on 6 February 1998 by the investigating agency in Cuautla, Morelos, and subsequently pursued by the Special Attorney for Environmental Enforcement (*Fiscalía Especial para la Atención de Delitos Ambientales*), both from the PGR. These actions from the prosecutor sought facts to corroborate the probable criminal liability incurred under CPF Articles 415, section I, and 416, section I, due to the contamination of the Facility. Substantive investigatory activities were suspended without any apparent reason on 26 August 1999. Consequently, on 31 January 2008, the PGR determined that the offense had expired on 12 October 2002 under the statute of limitations. Said expiry date was determined based on the date of the "last investigatory action": 26 August 1999. However, according to the information at the Secretariat's disposal nearly 60 investigatory activities were conducted between 26 August 1999 and the date the offense expired. The PGR maintained that BASF Mexicana had carried out activities harmful to the environment and to public health and that said situation made bringing criminal charges feasible. The public prosecutor did not initiate such proceedings though and, with the passage of time, the offense expired. In the end, the PGR decided to authorize not bringing criminal charges and to send the criminal investigation to the archive.⁸⁹⁵
395. Information regarding the criminal investigation 6244/FEDA/98 includes investigatory documents, which recorded the shipment of materials from the Facility to residents of the community of El Hospital.⁸⁹⁶ This criminal investigation file also contained medical opinions affirming that there are no data indicating harm to public health arising from the population's exposure to the Facility's wastes.⁸⁹⁷ On that basis, the MPF concluded that no infraction was proven and brought no criminal proceedings in either case.⁸⁹⁸
396. The Secretariat did not find factual information showing that the authorities (i.e., Profepa and PGR) determined the environmental or criminal liabilities in relation to the pigment-containing materials or pigments discovered at the Adjacent Property. Most of these materials were, however, hauled away for final disposal without sampling or analysis, in the presence of the environmental authority, and it is not possible to provide information on the hazardousness thereof as no evidence is extant. Nor did the Secretariat find information on measures, inspections, investigations or proceedings executed with the purpose of determining the liable party, in accordance with the law at issue.

397. Concerning the lot's end use, BASF Mexicana donated Ex Hacienda El Hospital to the Public Charity (*Patrimonio de la Beneficencia Pública*), a department of the Ministry of Health, by means of a transfer of title trust (*fideicomiso de traslativo de dominio*), for use in socially sustainable projects. However, the execution of this trusteeship is subject to a condition, which, as this factual record was being written, had not been met: an end to the occupation of the lot by a group of El Hospital residents. According to the information gathered by the Secretariat, Ex Hacienda El Hospital has been occupied by residents of the community, who are using its installations as a restaurant, events venue and as a "day spa." It is understood that BASF Mexicana is presently involved in negotiations with the persons occupying the site in order to achieve a peaceful end to said action.⁸⁹⁹
398. In accordance with NAAEC Article 15(3), the development of this factual record is "without prejudice to any further steps that may be taken" with respect to the consolidated submissions. The Secretariat notes, however, that the Parties have agreed to voluntarily report on any actions taken with regard to factual records one year after a factual record's publication.⁹⁰⁰

Endnotes

N.B. Unless otherwise stated, official footnoted documents are on file with the Secretariat. Also, page numbers referred to in the Consolidated Submissions and the Response in this factual record are those in the original Spanish version.

(Endnotes)

1. Full details regarding the various stages of the process as well as previous Secretariat determinations and factual records can be found on the CEC website at <<http://www.cec.org/submissions>>.
2. SEM-06-003 (*Ex Hacienda El Hospital II*), Article 14(1) Submission (17 July 2006) <<http://goo.gl/yrZpX>> (viewed 20 March 2013) [Submission SEM-06-003]. On 26 January 2006, the Secretariat received submission SEM-06-001 (*Ex Hacienda El Hospital*). In Submission SEM-06-001, the Submitter asserted a failure to enforce the environmental law in relation to a lot contaminated with heavy metals and some neighboring sites, located in the community of Ex Hacienda El Hospital, municipality of Cuautla, Morelos. The Submitter asserted that these sites were contaminated as a result of the operations of the Company BASF Mexicana, S.A. de C.V., from 1973 to 1996. The Submission was withdrawn by the Submitter on 16 May 2006. Submission SEM-06-001 and the corresponding Secretariat determinations are available at <<http://goo.gl/KHuZW>> (viewed 20 March 2013).
3. SEM-06-004 (*Ex Hacienda El Hospital III*), Article 14(1) Submission (22 September 2006), available at <<http://goo.gl/TvTb1>> (viewed 20 March 2013) [Submission SEM-06-004].
4. SEM-06-003 (*Ex Hacienda El Hospital II*), Article 14(1)(2) Determination (30 August 2006), available at <<http://goo.gl/RioqP>> (viewed 20 March 2013) [SEM-06-003 Article 14(1)(2) Determination]; SEM-06-004 (*Ex Hacienda El Hospital III*), Article 14(1)(2) Determination (28 September 2006), available at <<http://goo.gl/jatjZ>> (viewed 20 March 2013) [SEM-06-004 Article 14(1)(2) Determination].
5. On 11 July 2012, in Council Resolution 12-06, the CEC Council adopted various amendments to the Guidelines just after approving the production of this factual record. Cf. *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* <www.cec.org/Guidelines> (viewed 20 March 2013) [Guidelines].
6. SEM-06-004 Article 14(1)(2) Determination, note 4 *supra*, at 1.
7. SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated), Article 14(3) Response (10 January 2007), available at <<http://goo.gl/OBzle>> (viewed 20 March 2013) [Response].
8. Legal Affairs Coordinating Unit (*Unidad Coordinadora de Asuntos Jurídicos*-UCAJ), Semarnat, file no. 112/00000265/07 (15 January 2007).
9. Response, note 7 *supra*, at 8.
10. *Ibid.*, at 57.
11. SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated), Article 15(1) Notification (12 May 2008), available at <<http://goo.gl/fYj1h>> (viewed 21 March 2013) [Notification].
12. General Ecological Balance and Environmental Protection Act, published in the Official Gazette of the Federation (DOF) on 28 January 1988 [LGEEPA].
13. General Integrated Waste Prevention and Management Act, published in the DOF the 8 October 2003 [LGPGIR].
14. Federal Criminal Code, published in the DOF on 14 August 1931, formerly named Criminal Code for the Federal District in Matters under Ordinary Jurisdiction and for the Whole Republic in Matters under Federal Jurisdiction (*Código Penal para el Distrito Federal en materia de fuero común y para toda la República en materia de Fuero Federal*) [CPF].
15. Regulation to the General Ecological Balance and Environmental Protection Act respecting Hazardous Waste, published in the DOF on 25 November 1988 [RRP].
16. Mexican Official Standard NOM-052-SEMARNAT-1993, *Establishing the characteristics, identification procedure, and lists of hazardous waste*, published in the DOF on 23 June 2006 [NOM-052].
17. Mexican Official Standard NOM-053-SEMARNAT-1993, *Establishing the procedure for conducting extraction testing to determine the components that make a waste hazardous due to its toxicity in the environment*, published in the DOF on 2 October 1993 [NOM-053]. This Mexican Official Standard was originally published as NOM-CRP-002-ECOL/93, *Establishing the procedure for conducting extraction testing to determine the components that make a waste hazardous due to its toxicity in the environment*, and this was later changed to NOM-053-ECOL-1993. The current nomenclature of the standard is NOM-053-SEMARNAT-1993.
18. Council Resolution 12-03 (15 June 2012), available at <<http://goo.gl/hBjQJ>> (viewed 20 March 2013) [Council Resolution 12-03].
19. “The Secretariat shall submit a draft factual record to the Council. Any Party may provide comments on the accuracy of the draft within 45 days thereafter.”
20. “The Secretariat shall incorporate, as appropriate, any such comments in the final factual record and submit it to the Council.”

21. Paragraph 19.7 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation*, which took effect on 11 July 2012 [Guidelines], states that:

The Secretariat, to the extent possible, should conclude revising the draft factual record and provide Council with the final factual record, including a version that makes apparent any changes made, normally within 45 working days of receiving Party comments.
22. “The Council may, by a two-thirds vote, make the final factual record publicly available, normally within 60 days following its submission.”
23. LGEEPA Articles 4, 5, 6, 134, 135, 136, 139, 140, 150, 151, 152, 152 *bis*, 160, 161, 162, 167, 167 *bis*, 167 *bis* 1, 167 *bis* 2, 167 *bis* 3, 167 *bis* 4, 170, 171, 172, 173, 174, 191, 192, and 193. The Secretariat bears in mind that some of these articles were repealed with the coming into force of the LGPGIR on 6 January 2004.
24. LGPGIR Articles 68, 69, 75, 78, 101, 103, and 106.
25. LAN Articles 29 paragraphs VI and VII and 119 paragraphs VI, VII, XI, XIV, and XV.
26. CPF Articles 415 paragraphs I and II and 416 paragraph I as in force in 1997, and 420 *Quater* and 421 as in force as of the revision of 6 February 2002.
27. RRP Articles 6, 8, 10, 12, 14, 15 paragraphs II and VII, 16, and 17 paragraph II.
28. RLAN Articles 135 paragraphs IV, V, VI and VII and 136 paragraph II.
29. Submission SEM-06-003, note 2 *supra*, at 1.
30. *Ibid.*, at 3 and Appendix 24: Proposal (*punto de acuerdo*) by the Partido Verde Ecologista de México parliamentary group, at 2.
31. *Ibid.*, at 3. Note: The environmental audit program allows a company to document its non-compliance with its environmental obligations and with good industry practices, and to adopt deadlines for rectifying its non-compliance in an agreement between the company and the authority.
32. *Ibid.*, at 1.
33. Submission SEM-06-003, note 2 *supra*, at 6 and Appendix 11: Notarized affidavit drawn up on 14 May 2005 by Neftalí Tajonar Salazar, notary public no. 4, VI district of the state of Morelos.
34. Submission SEM-06-003, note 2 *supra*, at 5 and Appendix 8: Study by Roberto Flores Ortega. The study takes note of the properties owned by Jacobo Rodríguez Mares, Próculo García Alarcón, Reyna Puentes Ramírez, Cruz Ríos Cortés, and Aurora García Gutiérrez.
35. Submission SEM-06-003, note 2 *supra*, at 6.
36. “... the property of Jacobo Rodríguez Mares, Próculo García Alarcón, Reyna Puentes Ramírez, Cruz Ríos Cortés, and Aurora García Gutiérrez, who, deceived by BASF, allowed their properties to be backfilled with hazardous waste...” Submission SEM-06-003, note 2 *supra*, Appendix 8: Study by Roberto Flores Ortega, at 1.
37. Submission SEM-06-003, note 2 *supra*, at 4.
38. Submission SEM-06-003, note 2 *supra*, Appendix 4: DGII, administrative decision in file B-002/0750 (1 July 1998), at 10-11.
39. Submission SEM-06-003, note 2 *supra*, at 5, 9.
40. *Ibid.*, at 9 and Exhibit 13: DGII, administrative decision in file no. B-002/0775 (20 July 2000). The administrative proceeding brought against Roberto Abe Domínguez was recorded under no. B-002/0750.
41. Submission SEM-06-003, note 2 *supra*, at 1, 5.
42. *Ibid.*, at 6-9. In summary, the Submitters assert that the assessment of the site and the cleanup plan for the Facility were produced by consultants to BASF and that these studies served as a basis for the measures taken by the authority. The Submitters allege that, lacking independent studies, Profepa had biased information relating to restoration measures for the site.
43. *Ibid.*, at 9 and Appendix 13: DGIFC, administrative decision in file B-002/0775 (26 July 2002).
44. Submission SEM-06-003, note 2 *supra*, at 11.
45. Submission SEM-06-003, note 2 *supra*, at 7, 10, and Appendix 14: Legal Affairs Office (*Subprocuraduría Jurídica*) of Profepa, PFFPA/SJ/067/06 (27 February 2006).
46. Submission SEM-06-003, note 2 *supra*, at 10 and Appendix 17: DGIFC, administrative decision in file SII-DGIFC-023/2004 (5 August 2004).
47. Submission SEM-06-003, note 2 *supra*, at 10.
48. *Ibid.*, at 11, Appendix 16: Notarized affidavit drawn up on 11 May 2005 by Neftalí Tajonar Salazar, notary public no. 4, VI district of the state of Morelos, and Appendix 20: unnumbered file of 3 June 2005, issued by the Director of Urban Development, Municipal Public Works and Services of Cuautla.
49. Submission SEM-06-004, *supra* note 3, at 8-13.
50. *Ibid.*, at 3-7.
51. *Ibid.*, at 1.

52. *Ibid.*, at 5.
53. *Ibid.*
54. *Ibid.*, at 2; Appendix 9: Study by Manuel Murad Robles; Appendix 16: Notarized affidavit drawn up on 11 May 2005 by Neftalí Tajonar Salazar, notary public no. 4, VI district of the state of Morelos, and Appendix 18: Notarized affidavit drawn up on 9 May 2005 by Neftalí Tajonar Salazar, notary public no. 4, VI district of the state of Morelos.
55. Submission SEM-06-004, note 3 *supra*, at 2 and Appendix 8: Notarized affidavit drawn up on 9 May 2005 by Neftalí Tajonar Salazar, notary public no. 4, VI district of the state of Morelos.
56. Submission SEM-06-004, *supra* note 3, at 2-3.
57. *Ibid.*, at 7.
58. On issues relating to the alleged invalidity of the submission, see Response, *supra* note 7, at 7.
59. *Ibid.*, at 5-19.
60. The response was filed ‘*ad cautelam*’, which is a Latin phrase meaning “as a precaution”, and is often used as when challenging a court’s jurisdiction. .
61. Response, note *supra* 7, at 18.
62. *Ibid.*, at 5-7.
63. *Ibid.*, at 5.
64. *Ibid.*, at 6.
65. *Ibid.*, at 7.
66. NAAEC Articles 14(1)(d), 14(1)(e), and 14(2)(c); paragraphs 5.4, 5.5, 5.6, and 7.3 of the Guidelines.
67. Response, note 7 *supra*, at 7-14.
68. *Ibid.*, at 14.
69. *Ibid.*, at 15-18.
70. *Ibid.*, at 16-17.
71. LGEEPA Articles 4, 5, and 6; LGPGIR Article 78. In: Response, note 7 *supra*, at 21, 29.
72. LGEEPA Articles 134 and 135 paragraphs I, II, and IV. In: Response, note 7 *supra*, at 23.
73. LGEEPA Articles 135 paragraph III, 160, 161, 162, 167 *bis*, 167 *bis* 1, 167 *bis* 2, 167 *bis* 3, 167 *bis* 4, 170, 171, 172, 173, and 174; LAN Articles 29 paragraphs VI and VII, 119 paragraphs VI, VII, IX, XIV and XV; RLAN Articles 135 paragraphs IV, V and VI and 136 paragraph II. In: Response, at 24, 46-9.
74. LGPGIR Articles 68, 69, 75, 78, 101, 103 and 106; LGEEPA Articles 167 *bis*, 167 *bis* 1, 167 *bis* 2, 167 *bis* 3, 167 *bis* 4. In: Response, note 7 *supra*, at 28-32, 53.
75. CPF Articles 415 paragraphs I and II and 416 paragraph I as in force in 1997, and 420 *Quater* and 421 as in force as of the revision of 6 February 2002. In: Response, note 7 *supra*, at 57-8.
76. Response, note 7 *supra*, at 18 *et seq.*
77. LGEEPA Articles 4, 5, 6, 134, 135, 136, 139, and 152 *bis*; LGPGIR Articles 68, 69, 75, 78, 101, 103, and 106.
78. Response, note 7 *supra*, at 24, 28-29, and Exhibit 13: DGIFC, administrative decisions in file B-00026/775 (19 September and 20 July 2000).
79. Response, note 7 *supra*, at 24. The environmental restoration plan for the Facility is described in described in the decisions of 20 July, 19 September, and 24 October 2000 in file no. B-0002/775, issued by the Industrial Inspection Branch (DGII) of the Office of the Federal Attorney for Environmental Protection [restoration plan].
80. *Ibid.*, at 25.
81. *Ibid.*, at 28-9.
82. LGEEPA Article 152.
83. LGEEPA Article 136.
84. Response, note 7 *supra*, at 25-6; Exhibit 14: DGII, visit order no. EOO-SVI-DGII-0221/98 (23 June 1998); Exhibit 15: DGII, inspection record no. 17-006-0001/98 (23 June 1998).
85. Response, note 7 *supra*, at 27, and Exhibit 15: DGII, inspection record no. 17-006-0001/98 (23 June 1998).
86. Response, note 7 *supra*, at 28.
87. *Ibid.*, at 77.
88. *Ibid.*, at 78, 83-4.
89. *Ibid.*, at 78, 85-6.
90. LGEEPA Articles 140, 150, 151, and 152; RRP Articles 6, 8, 10, 12, 14, 15 paragraphs II and VII, 16, 17 paragraph II, and 23; NOM-052-SEMARNAT-1993; NOM-53-SEMARNAT-1993.

91. Response, note 7 *supra*, at 32-6 and Exhibits 13 and 16: DGIFC, administrative decisions in file B-0002/0775 (3 and 29 September 1998, 20 July 2000, 31 August 2004, and 25 February 2005).
92. Response, note 7 *supra*, at 35.
93. *Ibid.*, at 37.
94. Response, note 7 *supra*, Appendix 1, vol. XXIX: DGIFC, inspection order no. EOO-SVI-SGIGC.-1068/2001 (5 November 2001); and DGIFC, inspection record no. 17-006-0001/98-D-V-36 (5 November 2001).
95. Response, note 7 *supra*, at 37.
96. LGEEPA Article 139; LAN Articles 29 paragraphs VI and VII, 119 paragraphs VI, VII, XI, XIV and XV; RLAN Article 136 paragraph II.
97. Response, note 7 *supra*, at 42, 44.
98. *Ibid.*, at 43.
99. LGPGIR Article 101; LGEEPA Articles 160, 161, 162, 167, 167 *bis*, 167 *bis* 1, 167 *bis* 2, 167 *bis* 3, 167 *bis* 4, 170, 171, 172, 173, and 174.
100. Response, note 7 *supra*, at 30-1, 46-9, 54.
101. *Ibid.*, at 50.
102. *Ibid.*, at 55 and Exhibit 29: DGIFC, administrative decision in file B-0002/0750 (1 July 1998).
103. LGEEPA Articles 171, 172, 173, and 174.
104. Response, note 7 *supra*, at 37-8, 56, 86, and Exhibit 30: DGIFC, administrative decision in file B-002/0775 (20 December 2005). Note: The fines were imposed in the legal currency of the United Mexican States.
105. X-Rates, Monthly Average of US Dollars per 1 Mexican Peso, <<http://goo.gl/LTpa6>> (viewed 5 June 2013).
106. CPF Articles 415 paragraphs I and II and 416 paragraph I (as in force in 1997) and 420 *Quater* (as in force as of 6 February 2002).
107. Response, note 7 *supra*, at 58, 88.
108. LGEEPA Articles 191, 192, and 193.
109. Response, note 7 *supra*, at 64-76.
110. *Cf.* Notification, note 11 *supra*, at 20-7.
111. The relevant part of Council Resolution 12-03, note 18 *supra*, reads as follows:

TO DIRECT the Secretariat to provide the Council with its overall work plan for gathering the relevant facts, as well as to keep this Council informed of any future changes or adjustments to such plan;...
112. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/82/FR-OP (9 August 2012).
113. Secretariat, e-mail (9 August 2012).
114. See also paragraph 11.1 of the Guidelines (as in effect on 25 May 2012).
115. Marisol Anglés Hernández holds a bachelor of laws from the Faculty of Law of the Universidad Nacional Autónoma de México (UNAM), a certificate of advanced studies from the Faculty of Law of the Universidad de Alicante, and is a doctor of laws (with honors) in the same university's environmental law program. She is currently a level "C" associate researcher at the Instituto de Investigaciones Jurídicas, UNAM.
116. Montserrat Rovalo Otero holds a bachelor of laws (with honors) from the UNAM Faculty of Law. She completed a part of her bachelor's studies at the University of British Columbia and has collaborated with the legal department of the Centro de Estudios Jurídicos y Ambientales (CEJA). At the time this factual record was produced, she was a participant in the CEC's Short-Term Educational Program.
117. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/104/STP (18 September 2012).
118. *Ibid.*
119. Memorandum from the Secretariat's Legal Officer to the President of JPAC (18 September 2012); e-mail to the JPAC liaison officer (18 September 2012).
120. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/111/STC (22 October 2012).
121. UCAJ, e-mail (18 January 2013).
122. Secretariat, doc. no. A 14/SEM-06-003/SEM-06-004/95/REQ (29 August 2012).
123. UCAJ, doc. no. 112.00005853 (2 October 2012).
124. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/109/STP (19 October 2012).
125. UCAJ, doc. no. 112.00006613 (26 October 2012)
126. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/163/STP (7 December 2012).
127. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/165/STP (30 January 2013).

128. UCAJ, file no. 112.00000542 (30 January 2013); UCAJ, file no. 112.00000726 (5 February 2013).
129. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/117/DEV (24 October 2012).
130. IFAI, decision on request for information no. 0001700033409 in file 1342/09 of 17 June 2009.
131. *Ibid.*, at 1, 8, and 11, in particular the passage cited by the IFAI:
- the Federal Transparency and Access to Public Governmental Information Act is not the ideal channel through which to request this information [i.e., the *nolle prosequi* decision in criminal investigation 6243/FEDA/98]; nevertheless, if the request meets the criteria of Article 16 of the Federal Code of Criminal Procedure, it is suggested that you apply directly to the Investigating Officer at the Office of the Federal Public Prosecutor, who is in charge of the criminal investigation.
132. UEIDAPLE, doc. no. UEIDAPLE-DA-667-2012 (12 November 2012).
133. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/151/DEV (21 November 2012). The request was recorded in the Infomex system under no. 0001700237112 (27 November 2012).
134. Legal Affairs Branch of the Legal and International Affairs Office of the PGR, notification no. SJAI/DGAJ/01417/2013 (7 February 2013).
135. Secretariat, administrative review concerning request no. 0001700237112 (27 February 2013).
136. IFAI, admissibility decision, file no. RDA 1067/13 (11 March 2013).
137. IFAI, Dismissal of petition no. 1067/13, Drafted by Commissioner Gerardo Laveaga Rendón (12 June 2013).
138. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/183/DEV (1 March 2013). The request was recorded in the Infomex system under no. 0001700082513 (3 March 2013).
139. Legal Affairs Branch of the Legal and International Affairs Office of the PGR, file no. SJAI/DGAJ/7123/2013 (9 May 2013).
140. *Ibid.*
141. BASF Mexicana, unnumbered document (5 September 2013).
142. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/115/DEV (24 October 2012).
143. Infomex, request no. 1215100148812 (8 November 2012). The request was responded to on 20 November 2012 through the Infomex system.
144. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/98/COM (29 August 2012); Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/100/COM (29 August 2012).
145. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/113/COM (23 October 2012).
146. E-mail of 22 November 2012 with information concerning a trust agreement relating to the Facility and the Adjacent Lot; e-mail of 31 October 2012 with information requested by the Secretariat in doc. no. A14/SEM-06-003/SEM-06-004/113/COM (23 October 2012); e-mail of 16 October 2012 with photographs.
147. Paragraph 11.1 of the Guidelines states:
- ... the Secretariat may consider any relevant technical, scientific or other information:
- (a) that is publicly available;
 - (b) submitted by interested non governmental organizations or persons;
 - (c) submitted by the Joint Public Advisory Committee (JPAC); or
 - (d) developed by the Secretariat or by independent experts.
148. The letters were delivered to the CEC liaison office in Mexico City but the sender's return address was not noted. However, the author's name appears in all the letters, which are handwritten. Some of these persons were interviewed by the Secretariat.
149. Some of these persons were among those mentioned in the preceding paragraph who sent letters to the Secretariat.
150. According to the witness accounts obtained by the Secretariat, Ex Hacienda El Hospital has been occupied by some residents for the purpose of operating a business which rents out the Facility for private events.
151. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/02/DEV (2 October 2012).
152. Secretariat, e-mail from Legal Officer (2 November 2012); Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/05/DEV (6 November 2012).
153. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/06/DEV (7 November 2012).
154. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/01/DEV (19 September 2012).
155. BASF Mexicana, unnumbered document (15 October 2012).
156. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/03/DEV (7 November 2012).
157. BASF Mexicana, unnumbered document (16 November 2012).
158. Secretariat, doc. no. A14/SEM-06-003/SEM-06-004/11/DEV (21 November 2012).
159. BASF Mexicana, unnumbered document (4 December 2012).

160. Secretariat, e-mails from legal officer (21 January 2012 and 30 January 2012).
161. BASF Mexicana, unnumbered document (4 April 2013).
162. BASF Mexicana, unnumbered document (5 September 2013).
163. Cf. H. González Reza, "Gestión y Legislación Ambiental," in *Memorias del Segundo Encuentro Internacional de Derecho Ambiental* (Mexico: Semarnat-Instituto Nacional de Ecología-UNEP), at 206.
164. The name of Title Twenty-Five of the current CPF changed to "Environmental Offenses and Environmental Management" further to the revision published in the DOF on 6 February 2002.
165. LGEEPA Articles 183, 184, 185, 186, and 187 were repealed by the order revising, adding, and repealing various articles of the CPE, published in the DOF on 13 December 1996.
166. DOF, 22 October 1993.
167. DOF, 29 November 1994.
168. On 23 April 2003, a decision revising the nomenclature of the NOMs issued by Semarnat was published in the DOF.
169. On 23 June 2006, NOM-052-SEMARNAT-2005, *Establishing the characteristics, identification procedure, classification, and lists of hazardous waste*, was published in the DOF.
170. Javier Martínez *et al.* (2005), *Guía para la gestión integral de residuos peligrosos*, vol. 1, *Fundamentos*, (Montevideo: Centro Coordinador del Convenio de Basilea para América Latina y el Caribe), at 25.
171. J.A. Medina Ross *et al.* (2001), *Elementos a considerar para integrar las bases de política para la prevención de la contaminación del suelo y su remediación* (Mexico: Semarnat), at 8.
172. Cf. LGEEPA Article 5 paragraph II, original text published as an executive order in the DOF on 28 January 1988.
173. LGEEPA Article 3 paragraph X, revision published as an executive order in the DOF on 13 December 1996.
174. M.A. Cancino, *La regulación de la remediación de suelos contaminados en México y propuestas para su fortalecimiento. Revisión del marco jurídico y propuestas para su fortalecimiento* (Mexico: Secretaría de Medio Ambiente y Recursos Naturales-Deutsche Gesellschaft für Technische Zusammenarbeit, 2001), at 14.
175. Response, note 7 *supra*, at 23.
176. Original text of LGEEPA, published as an executive order in the DOF on 28 January 1988.
177. Paragraph amended by the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. In the original text, published as an executive order in the DOF on 28 January 1988, this paragraph read as follows: "It is necessary to rationalize the generation of solid, municipal, and industrial waste; and to incorporate techniques and procedures for the reuse and recycling thereof," and thus it did not make reference to efficient management and final disposal.
178. Text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. In the original text, published as an executive order in the DOF on 28 January 1988, this paragraph read as follows: "The use of pesticides, fertilizers, and toxic substances shall be compatible with ecosystem stability," without considering the human health effects, with a view to preventing any harms that might arise.
179. Paragraph added by the revisions to LGEEPA, published in the DOF on 13 December 1996.
180. C. Izcapa Treviño, *Lineamientos generales para la evaluación de sitios contaminados y propuesta de medidas para su restauración* (Mexico: Secretaría de Gobernación-Cenapred, 2001), at 4.
181. Text excerpted from the original version of LGEEPA, published as an executive order in the DOF on 28 January 1988.
182. Text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text of this paragraph, published as an executive order in the DOF on 28 January 1988, read: "Approvals for the installation and operation of waste containment or disposal facilities," demonstrating that the provision focused solely on final disposal to the exclusion of waste generation and management.
183. RRP Article 3.
184. C. Cortinas de Nava, "Lo que usted debe saber sobre los residuos y su legislación ambiental," *Gaceta Ecológica*, Mexico, no. 39, 1996.
185. LGPGIR Article 5 paragraph V.
186. C. Izcapa Treviño, note 180 *supra*, at 127.
187. Response, note 7 *supra*, at 25.
188. Original text of LGEEPA, published as an executive order in the DOF on 28 January 1988.
189. Text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text of paragraph III, published as an executive order in the DOF on 28 January 1988, read: "III. Alterations to the soil that alter its enjoyment, use, or exploitation." The pleonasm was corrected.
190. Referral (*reenvío*) occurs where one legislative text refers to another, such that its content must be considered integral to that of the referring provision. Cf. P. Salvador Coderch (1985), "Las remisiones," in Grupo de Estudios de Técnica Legislativa, *La forma de las leyes. Diez estudios de técnica legislativa* (Barcelona: Bosch), at 224; P. Salvador Coderch, "Definiciones y remisiones," in F. Sáinz Moreno and J. C. Da Silva Ochoa (eds.), *La calidad de las leyes* (Vitoria-Gasteiz: Parlamento Vasco, 1989), at 157 *et seq.*

191. LGEEPA Article 139, text of the revision published as an executive order in the DOF on 13 December 1996. The original text of this paragraph, published as an executive order in the DOF on 28 January 1988, read, "Any discharge, deposit, or seepage of contaminating substances or materials into soils shall comply with the provisions of this Act, its regulatory provisions, and any technical environmental standards issued for such purpose." The revisions to LGEEPA also renewed the National Waters Act and the Mexican Official Standards, which were formerly called technical environmental standards but changed their name and legal form further to the passage of the Federal Metrology and Standards Act (*Ley Federal de Metrología y Normalización*), published in the DOF on 1 July 1992.
192. LAN Article 119 paragraph XI, original text published as an executive order in the DOF on 1 December 1992.
193. *Cf.* Javier Martínez *et al.*, note 170 *supra*, at 31.
194. Semarnap-INE, *Promoción de la minimización y gestión integral de residuos peligrosos* (Mexico: Secretaría de Medio Ambiente, Recursos Naturales y Pesca-Instituto Nacional de Ecología, 1999), at 17.
195. LGEEPA Article 3 paragraph XXII. Paragraph added by the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. This paragraph was renewed by publication in the DOF on 28 January 2011.
196. LGEEPA Article 3 paragraph XXXII. Paragraph amended by the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. Article 3 paragraph XXVII of the original text, published as an executive order in the DOF on 28 January 1988, defined as hazardous "all those wastes, in any physical state, which, due to their corrosive, toxic, poisonous, reactive, explosive, flammable, biological/infectious, or irritant characteristics, pose a threat to ecological stability or the environment"
197. NOM-052-SEMARNAT-1993, paragraph 5.5.
198. *Ibid.*, Appendix 4: Classification of hazardous waste by industrial sector and process, paragraph 11.2.
199. *Ibid.*, Appendix 4, table 4.
200. *Ibid.*, paragraph 6.1.
201. This Mexican Official Standard was originally published as NOM-CRP-002-ECOL-93, *Establishing the procedure for conducting extraction testing to determine the components that make a waste hazardous due to its toxicity in the environment*, which was later changed to NOM-053-ECOL-1993. The current name of the standard is NOM-053-SEMARNAT-1993.
202. NOM-053-SEMARNAT-1993, paragraph 6.
203. With respect to this, the reader may consult NOM-147-SEMARNAT/SSA1-2004, *Establishing criteria for determining the remediation concentrations of soils contaminated with arsenic, barium, beryllium, cadmium, hexavalent chromium, mercury, nickel, silver, lead, selenium, thallium, and/or vanadium*, published in the DOF on 2 March 2007, Section 0, "Introduction." This NOM makes reference to "interim criteria" adopted by Profepa. With respect to the implementation of the "interim criteria" to the site in question, see: Dames & Moore, *supra* note 243, annex N and Table 15 *infra*.
204. *Cf.* Restoration plan, *supra* note 79.
205. Text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text of this paragraph, published as an executive order in the DOF on 28 January 1988, did not mention the regulatory provisions or technical standards under which materials and waste are classified as hazardous as a function of their level of hazardousness, nor did it consider their characteristics and volumes; nor did it make allusion to their labeling and packing, nor to risk assessment or to information concerning contingencies and accidents potentially arising as a result of their handling. The article stated only as follows: "The Ministry, having obtained the opinion of the Ministries of Trade and Industrial Development; Health; Energy, Mines, and Paragovernmental Industry; Agriculture and Water Resources, and the Interior, shall determine and publish in the Official Gazette of the Federation the lists of hazardous materials and wastes for the purposes of this act."
206. *Cf.* Javier Martínez *et al.*, note 170 *supra*, at 49-50.
207. *Ibid.*, at 94.
208. *Ibid.*, at 49.
209. LGEEPA Article 151. Text of the revisions published as an executive order in the DOF on 13 December 1996. The original text, published as an executive order in the DOF on 28 January 1988, made no reference to responsibility, stating merely: "The installation and operation of systems for the collection, storage, transportation, housing, reuse, treatment, recycling, incineration, and/or final disposal of hazardous waste shall be subject to the prior approval of the Ministry."
210. *Cf.* Javier Martínez *et al.*, note 170 *supra*, at 123.
211. Paragraph 5.6.1 of NOM-147-SEMARNAT/SSA1-2004, *Establishing criteria for determining the remediation concentrations of soils contaminated with arsenic, barium, beryllium, cadmium, hexavalent chromium, mercury, nickel, silver, lead, selenium, thallium, and/or vanadium*, published as an executive order in the DOF on 2 March 2007.
212. LGEEPA Article 152 *bis*. Article added by revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996.

213. December 1994 saw the revision of the Federal Public Administration Act (*Ley Orgánica de la Administración Pública Federal-LOAPF*) and the creation of the Ministry of Environment, Natural Resources, and Fisheries (Semarnap), a body of the executive branch invested with a comprehensive mission to regulate the conservation and use of the country's natural resources within a framework of sustainable development. Later, on 30 November 2000, an order revising, adding, and repealing various provisions of the LOAPF and the Federal Fisheries Act (*Ley Federal de Pesca*) was published in the DOF; among other features, it modified the powers of Semarnap, thus giving rise to Semarnat. Pursuant to Article 32 *bis* paragraph V of this act, Semarnat is competent to “enforce and promote, in coordination with the federal, state, and municipal authorities, compliance with the laws, Mexican Official Standards, and programs relating to natural resources, the environment, water, forests, wild flora and fauna (both terrestrial and aquatic), and fisheries; and other matters within the jurisdiction of the Ministry, as well as to impose sanctions as applicable.” This mandate was reiterated in LGEEPA Article 162, which reads: “The competent authorities may, acting by duly authorized personnel, make inspection visits, without prejudice to other statutorily defined measures that may be used to verify compliance with this statute”; text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996.
214. Profepa is a decentralized administrative body, possessing technical and operational autonomy, and was created by the Internal Regulation of the Ministry of Social Development (Sedesol), published in the DOF on 4 June 1992. Sedesol was the federal government body in charge of environmental management. Subsequently, on 17 July of that year, with the publication of the “Agreement regulating the organization and internal workings of the National Institute of Ecology and the Office of the Federal Attorney for Environmental Protection,” Profepa, an agency of the current Semarnat, was created and made operational.
215. B. García Camino, “Análisis judicial de inspecciones y actos de autoridad en materia ambiental,” in C. Nava Escudero (ed.), *Legislación Ambiental en America del Norte. Experiencias y mejoras prácticas para su aplicación e interpretación jurisdiccional* (Mexico: UNAM/Instituto de Investigaciones Jurídicas-CEC, 2011), at 586.
216. Cf. A. Roque Álvarez, “Bases constitucionales de las visitas de inspección y vigilancia en materia ambiental,” *Vínculo Jurídico*, Zacatecas, no. 18, April-June 1994.
217. Paragraph amended by revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original article, published as an executive order in the DOF on 28 January 1988, did not mention the possibility of imposing an additional fine. It read: “In the case of a second or subsequent inspection to verify compliance with a previous order or orders, where a lack of compliance with measures previously ordered is evident from the resulting official record, the competent authority may impose the sanction or sanctions prescribed by Article 171 of this Act.”
218. Paragraph added by the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text of the article, published as an executive order in the DOF on 28 January 1988, did not contemplate the possibility of revoking or modifying the sanction or sanctions imposed.
219. Paragraph amended by the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text of the article, published as an executive order in the DOF on 28 January 1988, read: “In the applicable cases, the federal authority shall notify the Public Prosecutor of the occurrence of acts or omissions that may constitute one or more offenses.” It did not make reference to the powers of the federal authority.
220. Response, note 7 *supra*, at 55.
221. LGEEPA Article 170. Text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text, published as an executive order in the DOF on 28 January 1988, read: “Where there exists an imminent risk of ecological instability or in cases of contamination with dangerous consequences for ecosystems, their components, or public health, the Ministry may, as a safety measure, order the seizure of contaminating materials or substances, the temporary partial or total shutdown of the contaminant sources, and apply to the competent authority, pursuant to the applicable laws, for the implementation of any safety measure or measures prescribed by said provisions.”
222. Julia Robut Carrasco, “El ‘medio ambiente’ como bien jurídico susceptible de protección jurídico penal,” *Letras Jurídicas*, Xalapa, vol. 13, January-June 2006, at 2-3.
223. This means that the public authorities, based on the authority of the Constitution, shall see to the protection of the environment and that such protection shall – by virtue of principles such as proportionality and *favor libertatis* – exhaust the existing preventive measures, and failing that and as a final measure, the statutorily defined punitive apparatus must be set in motion. Cf. M.C. Charro, *Sanciones medioambientales* (Madrid: Marcial Pons Ediciones Jurídicas y Sociales, 1999), at 11.
224. J.M. Silva Sánchez, *Aproximación al derecho penal contemporáneo* (Barcelona: Bosch, 1992), at 246.
225. I. de los Ríos, “La responsabilidad ambiental en la legislación ambiental venezolana,” *Memorias del primer encuentro internacional de derecho ambiental* (Mexico: Semarnat-INE, 2003), at 206.
226. LGEEPA Article 169. Paragraph amended by the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996:

In the applicable cases, the federal authority [i.e., Profepa] shall notify the Public Prosecutor of the occurrence of acts or omissions noted in the exercise of its powers that may constitute one or more offenses.

The original text, published as an executive order in the DOF on 28 January 1988, read:

In the applicable cases, the federal authority shall notify the Public Prosecutor of the occurrence of acts or omissions that may constitute one or more offenses.

Article 169 is complemented by LGEEPA Article 182, which provides:

In those cases where, as a result of the exercise of its powers, the Ministry [acting by Profepa] takes cognizance of acts or omissions that may constitute offenses pursuant to the applicable law, it shall file the corresponding complaint with the Office of the Federal Public Prosecutor. Any person may directly file criminal complaints corresponding to the environmental offenses defined by the applicable law. The Ministry shall, in matters under its jurisdiction, provide any technical or expert reports that may be requested by the Office of the Public Prosecutor or the judicial authorities, further to the filing of complaints in connection with environmental offenses.

Cf. Text of the revisions to LGEEPA, published as an executive order in the DOF on 13 December 1996. The original text of Article 169, published as an executive order in the DOF on 28 January 1988, read:

In order to seek a penal response to the offenses contemplated in this chapter, it shall first be necessary for the Ministry to file the relevant complaint, except where the offense is discovered *in flagrante delicto*.

227. CPF Article 415 paragraph I. Article added to the CPF by the revision published in the DOF on 13 December 1996.
228. CPF Article 416 paragraph I. Article added to the CPF by the revision published in the DOF on 13 December 1996. The administrative regime for water in Mexico is established by the LAN, which is the regulatory act for Article 27 of the Political Constitution of the United Mexican States in respect of national waters. The act is generally applicable throughout the nation's territory, its provisions are intended to preserve public order and the societal interest, and its object is to regulate the exploitation, use, and enjoyment of these waters, their distribution and control, as well as the preservation of their quantity and quality with a view to achieving comprehensive sustainable development.
229. Article added to the CPF by the revision published in the DOF on 13 December 1996.
230. *Cf.* A. Vázquez García, "La responsabilidad por daños al medio ambiente," *Gaceta Ecológica*, Mexico, no. 73, at 56.
231. CPF Article 182. *Cf.* note 226 *supra*.
232. The Hospital of Santa Cruz de Oaxtepec was founded in 1569 by Bernardino Álvarez and the Congregación de los Hermanos de San Hipólito. This hospital ministered to "persons who were crippled, deformed, syphilitic, and other sick people left to their own devices. It was also famous for the medicinal plants that were used to cure the sick." Josefina Muriel, *Hospitales de la Nueva España* (Mexico: UNAM, Publicaciones del Instituto de Historia, 1st series, no. 62, 1956), vol. 1, at 197-201.
233. *Ibid.*
234. B. von Mentz *et al.*, *Haciendas de Morelos* (Mexico: Instituto de Cultura de Morelos-Conaculta), at 289.
235. *Ibid.*, at 290-2.
236. *Ibid.* In 1908, the 24 mills in the state of Morelos produced one-third of the country's total output.
237. The rest of the good land had been taken by the Hacienda de Cuahuixtla. J. Womack, *Zapata y la Revolución Mexicana*, 3rd. ed. (Mexico: Siglo XXI, 1970), at 45, 48-9.
238. Additionally, the administrator of Hacienda El Hospital rented the land to Villa de Ayala farmers, who began planting in the furrows ploughed by the residents of Anenecuilco, "a decisive moment" in the leadup to the Anenecuilco uprising; *ibid.*, at 63.
239. *Ibid.*, at 61-5.
240. B. von Mentz *et al.*, note 234 *supra*, at 292.
241. Response, note 7 *supra*, Appendix 1: Judicial decision of 3 November 1986 in relation to the matter submitted voluntarily by Roberto Abe Domínguez concerning the rectification of the area, boundaries, and dimensions of the rural premises named "Ex Casco de la Hacienda del Hospital" before the civil judge of first instance of the Sixth Judicial District of the State of Morelos.
242. Contract of purchase and sale between Esperanza Pinzón de Gutiérrez and Roberto Abe Domínguez, signed 6 May 1948 before Genaro González García, notary public, director of the notarial office of notary no. 2 of Cuernavaca, Morelos.
243. The latter eventually sold products to Bacardí and Co. *Cf.* Motion by Roberto Abe Domínguez filing suit against BASF Mexicana, S.A. de C.V., and others, of 27 May 1999, as part of the ordinary civil suit contained in file no. 308/99, at 49.
244. Dames & Moore de México, final report of risk study (27 June 2002) [Dames & Moore de México]. The report states that "The former lessee of the production site was the company Pigmentos Mexicanos y Celco, S.A., which operated from 1961 to 1973 and was also a manufacturer of lead chromate pigments and probably used similar or identical production processes to those of BASF Mexicana"; Dames & Moore de México, final report of risk study (27 June 2002), ch. 5, at 1.
245. Secretariat's interview with a resident of El Hospital who stated himself to be a former employee of Pigmentos Mexicanos, and statement by one of the Submitters, both occurred 11-12 November 2012.
246. BASF Mexicana, *Nuestra Empresa*, available at <<http://goo.gl/p3aEQ>> (viewed 25 March 2013).
247. DGIFC, export report on environmental contamination (10 August 2001) in relation to the request by the Federal Public Prosecutor, Director of Desk III-FEDA, to Profepa in the context of criminal investigation A.P6243/FEDA/98 [Expert Report-2001].
248. BASF Mexicana, unnumbered document in response to a request for information from the Secretariat (15 October 2012). The document states that the company Pigmentos y Óxidos, S.A., also had manufacturing activities at the Facility and that

- Pigmentos Mexicanos, S.A., operated from 1961 to 1973; however, it was not possible to corroborate the exact dates with another source.
249. This was corroborated in interviews with a former BASF Mexicana employee and one of the Submitters. In addition, the BASF Mexicana website states that “with the acquisition of Pigmax (Cauatla), BASF Mexicana has commenced operations in the field of inorganic pigments.” In: *Nuestra Empresa*, available at <<http://goo.gl/p3aEQ>> (viewed 25 March 2013).
 250. Dames & Moore de México, note 244 *supra*, ch. 2, at 7, stating that there was no information on methods to prevent contamination by Pigmentos Mexicanos.
 251. Dames & Moore de México, note 244 *supra*, cap. 2, p. 7 and information obtained during interviews conducted on 14 and 15 November 2012 and 14 February 2013.
 252. Congressional proposal that the competent ministries of the Federal Executive take the measures necessary to determine contamination levels and their impacts in the community of El Hospital, situated in the municipality of Cauatla, Morelos, presented by congressman Fernando Espino Arévalo of the PVEM parliamentary group during the session held Tuesday, 19 October 2004 and published in the gazette of the House of Representatives (*Cámara de Diputados*) on 14 November of the same year.
 253. Lease between BASF Mexicana and Roberto Abe Almada (11 April 1973).
 254. BASF, *BASF at a glance*, available at <<http://goo.gl/Xa9G9>> (viewed 21 March 2013).
 255. *Ibid.*
 256. BASF Mexico, available at <<http://goo.gl/0NYW7>> (viewed 21 March 2013).
 257. Lease between BASF Mexicana and Roberto Abe Almada (11 April 1973).
 258. Leases between Roberto Abe Almada or Roberto Almada Rodríguez and BASF Mexicana, S.A.
 259. The renewed lease in 1988 contained a clause relating to the quality of the lessee’s wastewater. In addition, the ninth clause allowed modifications to the existing buildings, structures, and underground works. Finally, this lease apparently acknowledged improvements to the civil engineering of the premises up to 30 April 1988. Concerning the lease of 1 May 1993, the lessee undertook to obtain the permits necessary to keep the operations of the plant “from jeopardizing” the Facility, the employees, and the neighboring properties. The clauses relating to control of the quality of the wastewater originating in the Facility were renewed. *Cf.* Leases between BASF Mexicana and Roberto Abe Domínguez, and Response, note 7 *supra*, Appendix of exhibits no. 10: Judicial settlement between BASF Mexicana and a subsidiary, party of the first part, and Roberto Abe Domínguez, Roberto Abe Almada and its legal counsels, party of the second part, 26 October 1999, at 1.
 260. Expert Report-2001, note 247 *supra*, at 3.
 261. *Ibid.*
 262. Dames & Moore de México, note 244 *supra*, at cap. 5, p. 3.
 263. Response, note 7 *supra*, Appendix 1, vol. 1: Notarized affidavit of 3 September 1997, entry no. 17048 of notary public no. 3 of 6th Judicial District of the State of Morelos, Armando A. Rivera Villarreal; and citizen complaint filed by Roberto Abe Domínguez with Profepa on 1 October 1997 in relation to irregularities allegedly occurred during the shutdown and dismantlement of the Facility in Ex Hacienda El Hospital.
 264. As regards the effective application of the provisions applicable to environmental auditing, it should be noted that these are not addressed in this factual record.
 265. Expert Report-2001, note 247 *supra*.
 266. Submission SEM-06-001, note 2 *supra*, Appendix 3: Executive summary of the environmental audit of BASF Mexicana, S.A. de C.V., Cauatla, Morelos, April 1997.
 267. *Ibid.*
 268. LGEEPA, Article 38, referred to by Mexico in: Response, note 7 *supra*, at 59-60.
 269. Letter from BASF Mexicana, S.A. de C.V., to the Federal Attorney for Environmental Protection, 3 March 1997, received by the Clerk’s Office (*Oficialía de Partes*) of Profepa on 4 March 1997. Articles 401 and 434 of the Federal Labor Act refer, respectively, to early termination of the collective labor agreement and to the causes for early termination of labor relations.
 270. UCAJ, file no. 112.00005853, CD no. 1: BASF Mexicana, unnumbered doc. (4 June 1997) to the Profepa officer in the state of Morelos, in relation to the details of the measures necessary to carry out the dismantlement plan for the Cauatla plant.
 271. Response, note 7 *supra*, Appendix 1, Exhibit 3: Federal Attorney for Environmental Protection, administrative decision in administrative proceeding no. B-0002-0775 (20 December 2005), at 1.
 272. *Ibid.*, at 1-2.
 273. Response, note 7 *supra*, Appendix 1, vol. 1: DGII, file no. EOO-SVI-DGII-0221/98 (23 June 1998).
 274. *Ibid.*
 275. Response, note 7 *supra*, p. 68.
 276. Response, note 7 *supra*, Appendix 1, vol. 1: Notarized affidavit drawn up on 18 August 1997, under entry no. 16869 of notary public no. 3 of the 6th Judicial District of the State of Morelos, Armando A. Rivera Villarreal.

277. Response, note 7 *supra*, Appendix 1, vol. 1: Notarized affidavit drawn up on 22 August 1997, under entry no. 16869 of notary public no. 3 of the 6th Judicial District of the State of Morelos, Lic. Armando A. Rivera Villarreal.
278. Response, note 7 *supra*, Appendix 1, vol. 1: Notarized affidavit drawn up on 3 September 1997, under entry no. 17048 of notary public no. 3 of the 6th Judicial District of the State of Morelos, Lic. Armando A. Rivera Villarreal.
279. Response, note 7 *supra*, Appendix 1, vol. 1: Analytical results of Laboratorios ABC, 5 September 1997.
280. Response, note 7 *supra*, Appendix 1, vol. 1: Citizen complaint of 1 October 1997 filed by Roberto Abe Domínguez with Profepa on 6 October 1997 in relation to irregularities allegedly occurred during the shutdown and dismantlement of the Facility in Ex Hacienda El Hospital.
281. Response, note 7 *supra*, Appendix 1, vol. 1: Profepa, qualification decision in file 710/810/17 (23 October 1997).
282. Response, note 7 *supra*, Appendix 1, vol. 1: Profepa office in the state of Morelos, file no. PFFPA.MOR.05.165.97 (9 December 1997).
283. Response, note 7 *supra*, Appendix 1, vol. 1: Unnumbered doc. by Roberto Abe Domínguez (11 February 1998).
284. Response, note 7 *supra*, Appendix 1, vol. 1: File no. PFFPA.MOR.05.151.98 (10 March 1998).
285. Response, note 7 *supra*, at 75.
286. Response, note 7 *supra*, Appendix 1: Citizen complaint of 10 December 1997 filed with Profepa on 18 December 1997.
287. Letter to the Profepa officer in the state of Morelos, signed by residents and neighbors of the locality of El Hospital, Cuautla, Morelos, 22 January 1998.
288. Response, note 7 *supra*, Appendix 1, vol. 1: Letter to the Profepa officer in the state of Morelos, signed by residents and neighbors of the locality of El Hospital, Cuautla, Morelos, 3 February 1998.
289. Response, note 7 *supra*, Appendix 1, vol. 3: File no. PFFPA.MOR.05.049.98 (10 February 1998).
290. Response, note 7 *supra*, Appendix 1, vol. 1: DGII, decision in file B-0002/0750 (1 July 1998).
291. *Ibid.*
292. Response, note 7 *supra*, Exhibit 3: Federal Attorney for Environmental Protection, administrative decision in administrative proceeding no. B-0002-0775 (20 December 2005), at 7.
293. Response, note 7 *supra*, Appendix 1, vol. XVI: Complaints Branch of Profepa, file no. DG/004/DI/0426/2001 (4 June 2001); Profepa office in the state of Morelos, file no. PFFPA.MOR.05.279.2001 (7 June 2001).
294. Submission SEM-06-003, note 2 *supra*, Appendix 26: México, Comunicación y Ambiente, A.C., citizen complaint against BASF Mexicana, S.A. de C.V. (25 October 2005).
295. Response, note 7 *supra*, Exhibit 8: Detailed record drawn up by Profepa inspectors (6 December 2005).
296. Response, note 7 *supra*, at 67.
297. BASF Mexicana, unnumbered communication to the CEC Secretariat (15 October 2012), at 3-4.
298. Response, note 7 *supra*, Appendix of exhibits no. 10: Judicial settlement between BASF Mexicana and Química Knoll, party of the first part, and Roberto Abe Domínguez, Roberto Abe Almada, and its legal counsel, party of the second part, 26 October 1999, at 1.
299. *Idem.*
300. *Ibid.*, at 5-7.
301. *Ibid.*, at 11, 13-14.
302. *Ibid.*, at 11-12.
303. In addition, the suit included \$10 million for damage to the buildings on the Adjacent Lot, \$5 million for damage to the foundations on the Adjacent Lot, 30 million pesos for moral damages, \$5 million for other damages; 150,000 pesos for costs arising as a consequence of the damages, and payment of trial and other costs. Response, Appendix of exhibits no. 7: Thirty-Second Civil Court of the Federal District, decision in file 202/01 (3 February 2005).
304. Response, note 7 *supra*, Exhibit 7: Thirty-Second Civil Court of the Federal District, decision in file 202/01 (3 February 2005).
305. *Ibid.*, at 17.
306. That is, the Facility and the Adjacent Lot.
307. Response, note 7 *supra*, Exhibit 7: Fifth Civil Chamber of the Superior Court of Justice of the Federal District, docket nos. 138/03/15 and 138/03/16.
308. *Ibid.*
309. Response, note 7 *supra*, Exhibit 7: Direct amparo actions nos. D.C. 4739/2005 and D.C. 47290/2005.
310. See paragraph 150 *supra*.
311. Thirty-Second Civil Court of the Federal District, interlocutory judgment in file 202/01 (11 August 2005), at 17.
312. BASF Mexicana, unnumbered communication to the CEC Secretariat (15 October 2012), at 5.

313. A property trust is a legal act whereas one party, the “settlor” (BASF Mexicana) transfers the property of certain assets (the Ex Hacienda El Hospital) in order to conduct a specific end (socially sustainable projects). Public Register of Property and Commerce of the State of Morelos, trust recorded under no. 226, folio 115, vol. XXXI-I, section I, series C, and under electronic folio no. 382046 1, record drawn up under entry no. 58533 on 6 August 2010 before Héctor Guillermo Galeano Inclán, notary public no. 109004133 of the Federal District.
314. Information obtained during interviews conducted by the Secretariat on 14 and 15 November 2012 and 14 February 2013.
315. Related information may be found in: Hacienda La Concepción, <<http://goo.gl/uB1O2>> (viewed 11 April 2013).
316. Information obtained during interviews conducted by the Secretariat on 14 and 15 November 2012 and 14 February 2013.
317. *Ibid.*
318. Response, note 7 *supra*, Exhibit 3: Federal Attorney for Environmental Protection, administrative decision in administrative proceeding no. B-0002-0775 (20 December 2005).
319. BASF Mexicana, administrative review action no. 58/2006 (25 January 2006).
320. Response, note 7 *supra*, Exhibit 2: Minister of Environment and Natural Resources, decision on administrative review action in file no. 58/2006 (20 April 2006), at 41.
321. *Ibid.*, at 49.
322. Response, note 7 *supra*, Exhibit 1: BASF Mexicana, Action in nullity filed before the TFJEA (29 June 2006).
323. TFJEA, Fifth Metropolitan Regional Chamber, decision in file 20683/06-17-05-5 (22 May 2007), at 6.
324. *Ibid.*, at 8.
325. BASF Mexicana, unnumbered document (15 October 2012), at 8.
326. Instituto Nacional para el Federalismo y el Desarrollo Municipal, Enciclopedia de los Municipios de México.
327. Information obtained from Google Maps, <maps.google.ca> (viewed 21 November 2012).
328. *Ibid.*
329. Instituto Nacional para el Federalismo y el Desarrollo Municipal, Enciclopedia de los Municipios de México, <<http://goo.gl/N0AJ3>> (viewed 5 June 2013).
330. Dames & Moore de México, note 244 *supra*, ch. 3, at 2.
331. Figure derived from information available in Google Earth.
332. Dames & Moore de México, note 244 *supra*, ch. 3, at 1.
333. *Ibid.*
334. *Ibid.*, at 2.
335. *Ibid.*
336. *Ibid.*
337. *Ibid.*
338. Conagua, Balsas Watershed Body, available at <<http://www.conagua.gob.mx/ocb/>> (viewed 11 April 2013).
339. Enciclopedia de los Municipios de México.
340. Map derived from information taken from Conagua, Hydrogeography Information Division (*Subgerencia de Información Geográfica del Agua*), “Temas adicionales de consulta,” available at <<http://goo.gl/17fRi>> (viewed 27 November 2012).
341. Sedesol, “Atlas de Riesgos en el municipio de Cautla, Morelos,” final report, 12 December 2011, available at <<http://goo.gl/UiRzr3>> (viewed 8 January 2014), at 16.
342. *Idem.*
343. *Ibid.*, at 16.
344. Dames & Moore de México, note 244 *supra*, ch. 3, at 8.
345. *Ibid.*
346. *Ibid.*
347. *Ibid.*
348. Sedesol, note 341 *supra*, at 15.
349. *Ibid.*, at 15.
350. *Ibid.*, at 1.
351. *Ibid.*, at 23.
352. *Ibid.*
353. *Ibid.*, at 24.
354. Inegi, Census of Population and Housing 1995, available at <<http://goo.gl/xte7s>> (viewed 21 November 2012).

355. Inegi, Census of Population and Housing 2010, available at <<http://goo.gl/18rcz>> (viewed 21 November 2012).
356. Expert Report-2001, note 247 *supra*, at 3.
357. *Ibid.*
358. Dames & Moore de México, note 244 *supra*, ch. 5, at 1.
359. *Ibid.*
360. *Ibid.*
361. Expert Report-2001, note 247 *supra*, at 5.
362. *Ibid.*
363. *Ibid.*
364. *Ibid.*
365. Dames & Moore de México, note 244 *supra*, ch. 5, at 1.
366. Photo courtesy of Roberto Abe Almada.
367. Dames & Moore de México, note 244 *supra*, ch. 5, at 1.
368. Expert Report-2001, note 247 *supra*, at 5.
369. Submission SEM-06-003, note 2 *supra*: Photographic appendix of 3 September 1997.
370. Expert Report-2001, note 247 *supra*, at 5.
371. Submission SEM-06-003, note 2 *supra*: Photographic appendix of 3 September 1997.
372. Expert Report-2001, note 247 *supra*, at 5.
373. Submission SEM-06-003, note 2 *supra*: Photographic appendix of 3 September 1997.
374. Dames & Moore de México, note 244 *supra*, ch. 5, at 1.
375. Expert Report-2001, note 247 *supra*, at 5.
376. Derived from Dames & Moore de México, note 244 *supra*, ch. 5, at 2.
377. *Ibid.*, at 3-4.
378. This appendix was derived from information taken from: Expert Report-2001, note 247 *supra*, and Dames & Moore de México, note 244 *supra*.
379. Expert Report-2001, note 247 *supra*, at 6-7.
380. *Ibid.*, at 7.
381. The appendix was produced from information taken from: Expert Report-2001, note 247 *supra*, at 6-7.
382. Topografía, Estudios y Construcción, S.A. de C.V., *Auditoría Ambiental BASF Mexicana, S.A. de C.V. Cuautla Morelos* [Environmental Audit], ch. VI, “Executive Summary,” RSP-004. Eventually, Profepa eventually fined BASF Mexicana with 140,000 pesos for this violation, see: Response, note 7 *supra*, Exhibit 1: Minister of Environment and Natural Resources, decision on administrative review action filed by BASF Mexicana (20 April 2006), at 74.
383. Dames & Moore de México, note 244 *supra*, ch. 6, at 5.
384. ASTM (American Society for Testing Materials), Standard Guide for Risk-Based Corrective Action, E2081-00, 2000.
385. Dames & Moore de México, note 244 *supra*, ch. 6, at 7.
386. *Ibid.*
387. *Ibid.*
388. *Ibid.*
389. Table derived from: Profepa, Second group of interim criteria for restoration of soils contaminated with toxic inorganic compounds (heavy metals) and others, in: *Disposiciones y Procedimientos para la Caracterización y Restauración de Suelos Contaminados*, Profepa, n/d, in: Dames & Moore de México, *supra* note 244, Annex N. These are the types of compounds and elements occurring in the production of pigments at the Ex Hacienda El Hospital BASF site. This table includes comments from Canada to the Draft Factual Record with respect to toxicity of Chromium VI, Nickel and Lead. The Secretariat confirmed the accuracy of Canada’s comments at: Health Canada, “Risk Management Strategy for Lead,” <<http://goo.gl/uX7Eyi>> (viewed 28 January 2014); Canadian Council of Ministers of the Environment, “Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health. Chromium”, 1999 <<http://goo.gl/OHEOmE>> (viewed 28 January 2014); Canadian Council of Ministers of the Environment, “Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health. Nickel”, 1999 <<http://goo.gl/hnZuaY>> (viewed 28 January 2014).
390. Expert Report-2001, note 247 *supra*, at 7.
391. Response, note 7 *supra*, at 61.
392. Expert Report-2001, note 247 *supra*, at 9.
393. Environmental Audit, note 382 *supra*, ch. VI, “Executive Summary,” ATM-001.

394. *Ibid.*, ch. VI, “Executive Summary,” ATM-002.
395. *Ibid.*, ch. VI, “Executive Summary,” ATM-003.
396. *Ibid.*, ch. VI, “Executive Summary,” ATM-004.
397. *Ibid.*, ch. VI, “Executive Summary,” ATM-007.
398. *Ibid.*, ch. VI, “Executive Summary,” ATM-009.
399. *Ibid.*, ch. VI, “Executive Summary,” ATM-005.
400. *Ibid.*, ch. VI, “Executive Summary,” ATM-010.
401. *Ibid.*, ch. VI, “Executive Summary,” RSP-001.
402. *Ibid.*, ch. VI, “Executive Summary,” RSP-002.
403. *Ibid.*, ch. VI, “Executive Summary,” RSP-003.
404. *Ibid.*, ch. VI, “Executive Summary,” RSP-006.
405. *Ibid.*, ch. VI, “Executive Summary,” RSP-004.
406. *Ibid.*, ch. VI, “Executive Summary,” RSP-005.
407. *Ibid.*, ch. VI, “Executive Summary,” RSP-009.
408. Expert Report-2001, note 247 *supra*, at 9.
409. *Ibid.*
410. Environmental Audit, note 382 *supra*, ch. VI, “Executive Summary,” SYS-001.
411. *Ibid.*, ch. VI, “Executive Summary,” SYS-002.
412. Expert Report-2001, note 247 *supra*, at 10.
413. *Ibid.*
414. Environmental Audit, note 382 *supra*, ch. VI, “Executive Summary,” AGA-002.
415. *Ibid.*, ch. VI, “Executive Summary,” AGA-012. Pigment in suspension was observed in the manhole located between the hog barn and the Facility.
416. Environmental Audit, note 382 *supra*, ch. VI, “Executive Summary,” AGA-004.
417. Expert Report-2001, note 247 *supra*, at 10.
418. Response, note 7 *supra*, Exhibit 13: DGII, decision in file B-0002/775 (20 July 2000).
419. Rimsa-Grupo van Ruymbeke, “Estudio Geofísico-Hidrogeológica [*sic*] Ex Hacienda El Hospital, Estado de Morelos” (Mexico: Rimsa-Grupo van Ruymbeke, November 1998).
420. *Ibid.*, at 4.
421. *Ibid.*
422. Rimsa-Grupo van Ruymbeke, “Restauración del Sitio, Reporte de Caracterización de Agua, Ex Planta de Pigmentos El Hospital, Morelos,” draft (Mexico: Rimsa-Grupo van Ruymbeke, December 1999). While the study states that soil characterization was one of the activities carried out, the report does not include the report of results.
423. *Ibid.*, at 5.
424. *Ibid.*, at 16.
425. *Ibid.*, at 19.
426. *Ibid.*
427. *Ibid.*
428. *Ibid.*, at 31.
429. *Ibid.*, at 33.
430. Cr levels (0.27 and 0.67) and Cr⁶ levels (0.52) were reported. The comparison value for Cr in the Federal Duties Act (*Ley Federal de Derechos*) was 0.1. The act does not contain parameters for Cr⁶. *Ibid.*, at 33-4.
431. *Ibid.*, at 37.
432. *Ibid.*
433. *Ibid.*
434. *Ibid.*, at 38.
435. *Ibid.*
436. NEAP-6244/99 Declaration, note 848 *infra*, at 4.
437. Legal Affairs Branch, Legal and International Affairs Office of the PGR, notification no. SJAI/DGAJ/01417/2013 (7 February 2013).
438. NEAP-6244/99 Declaration, note 848 *infra*, at 2.

439. Inspection visit documented in record no. MOR(17-06-32-97).
440. BASF Mexicana, unnumbered communication to the CEC Secretariat (15 October 2012), Appendix 4: Transcription of the expert report issued by Profepa, 3 March 1999, at 3.
441. *Ibid.*, at 4.
442. *Ibid.*
443. The sampling was documented in: Response, note 7 *supra*, Appendix 1, vol. 1: Inspection record no. 17-006-0001/98-D (23 June 1998).
444. Table derived from: Response, note 7 *supra*, Appendix 1, vol. 5: Expert report issued by Profepa on 3 March 1999, at 7.
445. Response, note 7 *supra*, Appendix 1, vol. 1: Inspection record no. 17-006-0001/98-D (23 June 1998).
446. Response, note 7 *supra*, Appendix 1, vol. 5: Expert report issued by Profepa, 3 March 1999, at 8.
447. *Ibid.*, at 8-9.
448. *Ibid.*, at 9.
449. *Ibid.*, at 7, 13-16.
450. *Ibid.*, at 9.
451. *Ibid.*, at 18.
452. *Ibid.*, at 9.
453. *Ibid.*, at 15-16.
454. Expert Report-2001, note 247 *supra*, at 1.
455. *Ibid.*
456. *Ibid.*, at 2.
457. *Ibid.*, at 3.
458. *Ibid.*, at 4.
459. *Ibid.*, at 5.
460. *Ibid.*, at 6.
461. *Ibid.*
462. *Ibid.*, at 7.
463. *Ibid.*, at 10.
464. *Ibid.*, at 17.
465. *Ibid.*, at 18.
466. *Ibid.*
467. *Ibid.*
468. *Ibid.*
469. *Ibid.*, at 23.
470. *Ibid.*, at 24-5.
471. *Ibid.*, at 25.
472. *Ibid.*
473. Environmental Health Branch, Ministry of Health, "Evaluación de la exposición de una población cercana a una fábrica de pigmentos," preliminary technical report, no year given. In: Evidence and Risk Management Commission (*Comisión de Evidencia y Manejo de Riesgos*), file no. CEMAR/000393/2012 (26 November 2012), issued in response to Infomex request no. 1215100148912 [Lead Health Effects Study].
474. *Ibid.*, at 3.
475. *Ibid.*, at 1.
476. *Ibid.*, at 3.
477. *Ibid.*, at 4-5.
478. Table derived from information taken from: Lead Health Effects Study, note 473 *supra*, at 4-5.
479. Submission SEM-06-003, note 2 *supra*, at 4.
480. *Ibid.*, at 6-7.
481. *Ibid.*
482. *Ibid.*, at 8.
483. Official Mexican Standard NOM-199-SSA1-2000 *Lead levels in blood and actions as criteria to protect health of non-occupationally exposed population*, DOF 18 October 2002.

484. Grupo van Ruymbeke, "Evaluación de riesgo ambiental asociado a la presencia de cobre," report, July 2001, at 1.
485. Grupo van Ruymbeke, "Evaluación de riesgo ambiental asociado a la presencia de cobre," report, April 2002 [Copper Study-2002].
486. *Ibid.*, at 1.
487. *Ibid.*
488. *Ibid.*
489. Table derived from: Copper Study-2002, note 485 *supra*, at 3.
490. Copper Study-2002, note 485 *supra*, at 12.
491. *Ibid.*, at 15.
492. *Ibid.*, at 49-50.
493. *Ibid.*, at 52.
494. *Ibid.*, at 54.
495. *Ibid.*
496. *Ibid.*, at 55.
497. Environmental Geophysics Associates, "Geophysical Study El Hospital Village Morelos, Mexico," 2 June 2002. In: Dames & Moore de México, note 244 *supra*, Appendix K.
498. *Ibid.*, at 1. It should be noted that the report refers in some instances to "BASF Santa Clara" and in others to "El Hospital Village," which causes confusion, since the Facility in question is clearly in the second locality and not in Santa Clara.
499. Environmental Geophysics Associates, "Geophysical Study El Hospital Village Morelos, Mexico," 2 June 2002, at 35. In: Dames & Moore de México, note 244 *supra*, Appendix K.
500. *Ibid.*
501. Quantitative Decisions, "Resultados del Plan de Riesgos Basado en Muestreo-Suelos," 6 June 2002. In: Dames & Moore de México, note 244 *supra*, Appendix J.
502. *Ibid.*, at 7.
503. *Ibid.*, at 8.
504. *Ibid.*, at 13-20.
505. *Ibid.*, at 21.
506. *Ibid.*, at 23-4.
507. *Ibid.*, at 24.
508. *Ibid.*
509. *Ibid.*, at 26.
510. *Ibid.*
511. *Ibid.*, at 30.
512. *Ibid.*
513. *Ibid.*
514. *Ibid.*, at 36.
515. *Ibid.*, at 39.
516. Dames & Moore, note 244 *supra*, ch. 6, at 15.
517. *Ibid.*, at 35.
518. *Ibid.*
519. *Ibid.*
520. *Ibid.*, at 79.
521. *Ibid.*
522. *Ibid.*
523. *Ibid.*
524. *Ibid.*
525. *Ibid.*, at 80.
526. *Ibid.*
527. *Ibid.*, at 80-1.
528. *Ibid.*, at 81.

529. *Ibid.*, ch. 1, at 1.
530. *Ibid.*, at 2.
531. BASF Mexicana, unnumbered communication to the Deputy Attorney for Industrial Auditing of Profepa (20 June 2002).
532. BASF Mexicana, unnumbered communication to the Director, Integrated Management of Contaminants, Semarnat (20 June 2002).
533. BASF Mexicana, unnumbered communication to the Director, Environmental Health, Ministry of Health (21 June 2002).
534. Dames & Moore, note 244 *supra*, Appendix J: Quantitative Decisions, “Resultados del Plan de Riesgos Basado en Muestreo-Suelos,” 6 June 2002; and Appendix K: Environmental Geophysics Associates, “Geophysical Study El Hospital Village Morelos, Mexico,” 2 June 2002.
535. Figure derived from: Dames & Moore, note 244 *supra*, Figure 6.12.
536. Dames & Moore, note 244 *supra*, ch. 1, at 1.
537. *Ibid.*, ch. 6, at 33.
538. *Ibid.*, at 34.
539. *Ibid.*
540. Figure derived from: Dames & Moore, note 244 *supra*, Figure 6.12. The locations of the concentrations shown here are approximate.
541. Figure derived from: Dames & Moore, note 244 *supra*, Figure 6.12. The locations of the concentrations shown here are approximate.
542. Dames & Moore, note 244 *supra*, ch. 6, at 39.
543. *Ibid.*
544. *Ibid.*
545. Figure derived from: Dames & Moore, note 244 *supra*, Figure 6.14. The locations of the concentrations shown here are approximate.
546. Figure derived from: Dames & Moore, note 244 *supra*, Figure 6.13. The locations of the concentrations shown here are approximate.
547. Dames & Moore, note 244 *supra*, ch. 6, at 44.
548. In: Dames & Moore, note 244 *supra*, Appendix N.
549. Dames & Moore, note 244 *supra*, ch. 6, at 48.
550. Dames & Moore, note 244 *supra*, ch. 7, at 2.
551. Grupo van Ruymbeke, Vidambiente, “Limpieza final de drenajes y entorno de la planta de pigmentos,” final report, June 2009, Mexico.
552. *Ibid.*, at 1.
553. Submission SEM-06-003, note 2 *supra*, at 5.
554. *Ibid.*, at 6.
555. Response, note 7 *supra*, Appendix 1, vol. I: BASF Mexicana, unnumbered doc. (25 February 1998).
556. Response, Exhibit 3: Administrative decision in file B-0002/0775 of 20 December 2005, issued by the Federal Attorney for Environmental Protection, at 22 and Appendix 1, vol. II, folio 335.
557. Response, Appendix 1, vol. II: Inspection record 17-006-003/98 (29 July 1998), at 1/41. The record documents the measures taken to remove waste from the property of residents of El Hospital.
558. Response, Exhibit 3: Administrative decision of 20 December 2005 in file no. B-002/0775, at 24.
559. Submission, note 2 *supra*, at 2.
560. Submission SEM-06-003, at 4-6.
561. Submission SEM-06-003, note 2 *supra*, at 5.
562. Response, note 7 *supra*, Appendix 1, vol. I: BASF Mexicana, unnumbered doc. (25 February 1998).
563. Response, note 7 *supra*, Exhibit 3: Administrative decision of 20 December 2005 in file no. B-002/0775, at 20.
564. Response, note 7 *supra*, Appendix 1, vol. I: Citizen complaint of 1 October 1997 filed by Roberto Abe Domínguez with Profepa on 6 October 1997 in relation to alleged irregularities occurred during the shutdown and dismantlement of the Facility in Ex Hacienda El Hospital.
565. Response, note 7 *supra*, Appendix 1: Citizen complaint of 10 December 1997, filed with Profepa on 18 December 1997.
566. Response, note 7 *supra*, Appendix 1, vol. I: Filing of 3 February 1998, received by the Clerk’s Office of Profepa on 25 February 1998, whereby various residents of El Hospital submitted private documentation consisting of 24 “material exit passes” in relation to the citizen complaint filed 18 December 1997.
567. Response, note 7 *supra*, Appendix 1, vol. I: DGII, decision in file B-0002/0750 (1 July 1998).
568. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 19.
569. *Ibid.*, at 19-20.
570. *Ibid.*, at 2.

571. In the inspection records, the inspectors noted a finding of 4 benches taken from the pigment filters and mixing area; 1 ladder 2.5 m long containing pigment; 200 kg of sheet material painted yellow; 1 metal locker; 1 piece of metal fencing, 1 m x 1.2 m; 6 metal drums, 200 l; 142 pigment-containing boards; 1 stainless steel sink; 1 fiberglass tub, 1000 l; approximately 500 kg of pipe; 10 pigment-containing PVC pipes; 1.5 tons of rebar scrap; and an approximate volume of 77 m³ of debris. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 2-3, 20-5.
572. *Ibid.*, at 29-30.
573. *Ibid.*, at 2; Response, note 7 *supra*, Appendix 1, vol. 1: Doc. no. PFPA.MOR.05.049.98 of 10 February 1998 whereby the Profepa office in the state of Morelos informed Silvestre García Alarcón *et al.* of the processing of their complaint, at 2.
574. *Ibid.*, at 2-3.
575. Response, note 7 *supra*, Appendix 1, vol. II: Doc. no. EOO-SVI-DGII-003486 of 27 July 1998 whereby Profepa notified Alfredo Solís Colima of the upcoming inspection visit to the warehouse located at kilometer 106 of the Cuautla-Oaxaca highway, Colonia La Biznaga, Cuautla, Morelos, at 1.
576. Response, note 7 *supra*, Appendix 1, vol. II: Inspection record no. 17-006-0002/98-D of 28 July 1998, at 3.
577. Response, note 7 *supra*, Appendix 1, vol. II: Doc. no. EOO-SVI-DGII-003485 of 27 July 1998 whereby Profepa notified Erasmo Rodríguez Mares *et al.* of an upcoming inspection visit to their property.
578. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 31-5.
579. *Ibid.*, at 31-2.
580. *Ibid.*, at 31, 33.
581. *Ibid.*, at 31-2.
582. *Ibid.*, at 31.
583. *Ibid.*, at 34-5.
584. *Ibid.*, at 40.
585. Response, note 7 *supra*, Appendix 1, vol. IV: Decision issued by the Industrial Inspection Branch of Profepa in administrative file no. B-0002/0750 (3 September 1998), at 2.
586. *Ibid.*, at 4; Cf. Response, note 7 *supra*, Appendix 1, vol. IV: Doc. no. EOO-SVI-DGII-004331 issued by the Industrial Inspection Branch of Profepa (17 September 1998).
587. Response, note 7 *supra*, Appendix 1, vol. IV: Audit record no. 17-006-0003/98-D-V-01 (17 September 1998), at 4-5, 7-9, 21.
588. *Ibid.*, at 5, 8-9, 12, 21; Response, note 7 *supra*, Appendix 1, vol. V: Audit record no. 17-006-0001/98-D-V-10 (21 January 1999), at 3.
589. *Ibid.*, at 4, 7-8.
590. *Ibid.*, at 27.
591. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 30.
592. *Ibid.*, at 31-6.
593. The residents stated that the following were collected from them: 1 amphora, 20 l; 1 bench for pigment filter; 2 rebar beam cages; 5 fiberglass trays; 1 metal bucket, 20 l; 4 plastic buckets, 20 l; 11 plastic buckets, unspecified capacity; 16 buckets, 20 l, unspecified composition; 15 buckets, unspecified capacity and composition; 1 jug, 50 l; 30 cages for collector bags; 3 hose outlets from vats; scraps of pigment-impregnated iron pipes of different diameters; 2 iron plates; 61 metal pieces; 1 plastic jug, 100 l; 4 jugs, 100 l, unspecified composition; 1 jug, 50 l, unspecified composition; 1 jug, 200 l, unspecified composition; 1 piece of wire mesh; 20 pigment-impregnated beams; 1 plastic drum, 200 l; 2 metal drums, 200 l; 9 drums, 200 l, unspecified composition; 8 metal drums, 200 l; 15 drums, 200 l, unspecified composition; 2 drums, unspecified capacity and composition; 11 pigment-containing wooden boards; 142 pigment-impregnated boards, unspecified composition; 53 boards, unspecified composition, presence of pigment not indicated. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 31-3, 36.
594. These residents were given: 4 kg of burned wire; 20 cement bags, 50 kg each, plus 11 bags of unspecified weight; 11 plastic buckets, 20 l; 1 plastic bucket, unspecified capacity; 14 buckets, 20 l, unspecified composition; 15 buckets, unspecified capacity and composition; 90 m of armix (sic); 1 plastic jug, 100 l; 2000 bricks; 2 boards, 2.8 m long; 33 boards and 20 beams, dimensions unspecified; 1 plastic drum, 200 l; 3 metal drums, 200 l; 12 drums, 200 l, unspecified composition; 8 metal drums, 200 l; 21 drums, 200 l, unspecified composition; 2 drums, unspecified capacity and composition; 191 boards; and 600 pesos. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 31-3, 36.

595. The materials dumped were: 9 wooden beams; 5 angle brackets; 2 benches and 9 benches for filters (8 impregnated); 1 metal bench; 2 metal lockers; 5 plastic buckets, 20 l; 44 buckets, 20 l, unspecified composition; 16 pigment-containing buckets, unspecified capacity and composition; 2 fiber drums; 5 mill ladders, pigment-impregnated; 1 cage ladder; 4 metal structures and 50 m of scraps; 8 corrugated asbestos sheets; 4 lockers; approximately 50 pieces of 3/8" rebar; 1 clothes rack; 5 plastic jugs, 200 l; 2 plastic jugs, 100 l; 2 metal doors; 500 pieces of fire brick from the drying ovens; 13 metal drums, 200 l, plus 5 of unspecified capacity; 10 plastic drums, 200 l; 1.5 drums, unspecified capacity and composition; 14 metal drums, 200 l; 2 plastic drums, 200 l, plus 3 of unspecified capacity; 16 wooden boards (15 pigment-containing); 78 pigment-impregnated boards, unspecified composition; scraps from approximately 12 more boards; 2 laboratory sinks (1 pigment-impregnated) and 1 washbasin; 7 metal tubs, 100 l; 1 fiberglass tub, 1000 l; 4.5 tubs, 100 l, unspecified composition; 80 kg of impregnated iron pipe; 21 PVC pipes of various diameters and lengths; 11 conduit pipes of various diameters and lengths; 1 batch of pipes and 9 lengths of pipe totaling 20 m, unspecified composition; and 4 joists. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 33-6.
596. Cf. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 33-6; Response, note 7 *supra*, Appendix 1, vol. IV: Doc. no. EOO-SVI-DGII-004331 issued by the Industrial Inspection Branch of Profepa (17 September 1998).
597. The materials removed were: 8 metal benches and 3 metal benches for filters; 2 metal lockers; 47 plastic buckets, 19 l; 5 plastic buckets, 10 l; 5 plastic buckets, 20 l; 12 buckets, 19 l, unspecified composition; 2 buckets, 10 l, unspecified composition; 6 plastic buckets, unspecified capacity; 2 fiber drums, 50 kg; 1 ladder from the mill area and 1 made of iron; 3 polypropylene tarps, 2 m²; 1 clothes rack; 1 wooden plate from filter press; 1 round wooden plate; 3 plastic jugs, 100 l; 1 jug, 19 l, unspecified composition; 500 pieces of fire brick; 20 metal drums, 200 l; 3 plastic drums, 200 l; 3 plastic drums, 100 l; 5 drums, 200 l, unspecified composition; 10 metal drums, 200 l; 3 plastic drums, 200 l; 86 wooden boards (42 pigment-impregnated); 2 pigment-impregnated washbasins; 2 metal tubs, 100 l; 80 kg of iron pipe; 2 PVC pipes, each 4 m, and 18 PVC pipes, each 3 m; 6 pigment-impregnated pipes, unspecified composition; 9 lengths of pipe totaling 20 m long; 9 impregnated wooden beams; and 50 pieces of pigment-impregnated 3/8" rebar. Response, note 7 *supra*, Appendix 1, vol. IV: Audit record no. 17-006-0003/98-D-V-01 (17 September 1998), at 4-6, 8, 10-12, 14-16, 18, 20, 22-3; Response, note 7 *supra*, Appendix 1, vol. V: Audit record no. 17-006-0001/98-D-V-10 (21 January 1999), at 3.
598. The materials delivered by the Company were: 4 tubular metal benches; 2 cement bags, 50 kg; 37 plastic buckets, 19 l; 6 plastic buckets, 20 l; 14 buckets, 19 l, unspecified composition; 1 complete bathroom set; one metal table with plywood top, 2.4 m by 1.2 m; 3500 red bricks and 1000 blocks; 30 metal drums, 200 l; 3 drums, 200 l, unspecified composition; 7 metal drums, 200 l; 62 wooden boards; 1 stainless steel sink with drying rack and grid; 1 length of PVC pipe, 6 m long by 2" in diameter; 4 pipes, unspecified composition, 3 m long by 2" in diameter; 9 wooden beams; 75 pieces of 3/8" rebar. Response, note 7 *supra*, Appendix 1, vol. V: Audit record no. 17-006-0001/98-D-V-10 (21 January 1999), at 4-6, 8, 10-11, 14-18, 20, 22-3.
599. The following materials were not removed from 4 lots owned by residents of El Hospital: 2 washbasins; 4 ladders from the mills area; one cage ladder; 4 metal structures; 2 metal doors; 5 angle brackets; 5 plastic jugs, 200 l; 2 jugs, 50 l, unspecified composition; 9 plastic drums, 200 l; 1 plastic drum, 200 l; 24 plastic buckets, 20 l; 1 metal bench, 4 m long; 1 metal joist, 7 m by 15 cm; 5 lengths of metal joist; 8 corrugated asbestos sheets; 6 jute bags, 1000 kg; 2 metal tubs, 100 l; 4 wooden boards. Response, note 7 *supra*, Appendix 1, vol. V: Audit record no. 17-006-0001/98-D-V-10 (21 January 1999), at 11, 16, 19, 23.
600. Response *supra* note 7, at 11.
601. *Ibid.*, at 16.
602. *Ibid.*, at 19.
603. *Ibid.*, at 23.
604. Decision issued by the Director, Industrial Inspection, Profepa in administrative file no. B-0002/0750 (26 November 1998), at 2.
605. Decision issued by the Director, Industrial Inspection, Profepa in administrative file no. B-0002/0775 (19 January 1999).
606. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), at 50.
607. *Ibid.*, at 74-5.
608. *Ibid.*, at 48, 74.
609. *Ibid.*, at 49-50.
610. *Ibid.*, at 74-5.
611. *Ibid.*, at 40.
612. *Ibid.*, at 71.
613. *Ibid.*, at 74.
614. Response, note 7 *supra*, at 37-8, 56, 86, and Exhibit 30: DGIFC, administrative decision in file B-002/0775 (20 December 2005). Note: The fines were imposed in the legal currency of the United Mexican States.
615. X-Rates, Monthly Average of US Dollars per 1 Mexican Peso, <<http://goo.gl/LTpa6>> (viewed 5 June 2013).
616. Response, note 7 *supra*, Exhibit 3: Administrative decision in file B-0002/0775 (20 December 2005), pp. 74-75.

617. Submission SEM-06-003, note 2 *supra*, at 6 and Appendix 11: Notarized affidavit drawn up on 14 May 2005 by Neftalí Tajonar Salazar, notary public no. 4, VI district of the state of Morelos.
618. Submission SEM-06-004, note 3 *supra*, at 2.
619. *Ibid.*, at 6-7.
620. Response, note 7 *supra*, at 25.
621. *Ibid.*, at 8-9.
622. Figure derived from: Dames & Moore, note 244 *supra*, and Response, note 7 *supra*, Exhibit 13: DGII, decision in file no. B-0002/775 (19 September 2000), map 1.
623. Table derived from: Response, note 7 *supra*, Exhibit 13: DGII, decision in file no. B-0002/775 (19 September 2000), at 3.
624. Table derived from: Response, note 7 *supra*, Exhibit 13: DGII, decision in file no. B-0002/775 (20 July 2000), at 3 and 6.
625. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-001/98-D-V-31 (6 November 2000), at 2/472.
626. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-001/98-D-V-31 (16 November 2000), at 8/472. The quote was taken verbatim from this record.
627. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-001/98-D-V-31 (21 November 2000), at 10/472.
628. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-001/98-D-V-31 (22 and 23 November 2000), at 12-16/472.
629. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-001/98-D-V-31 (2 January 2001), at 65/472.
630. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (21 February 2001), at 120-1/472.
631. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (23 February 2001), at 123/472.
632. *Ibid.*
633. Response, note 7 *supra*, Appendix 1, vol. 12: DGII, document in file B-0002/775 (5 March 2001).
634. Response, note 7 *supra*, Appendix 1, vol. 13: BASF Mexicana, letter to the DGII (20 March 2001).
635. *Ibid.*
636. Response, note 7 *supra*, Appendix 1, vol. 13: DGII, document in file B-0002/775 (27 March 2001).
637. Response, note 7 *supra*, Appendix 1, vol. 13: BASF Mexicana, letter to the DGII (29 March 2001).
638. Response, note 7 *supra*, Appendix 1, vol. 13: DGII, file no. EOO.SVI.DGII.-0381/2001 (28 March 2001).
639. Response, note 7 *supra*, Appendix 1, vol. 13: BASF Mexicana, letter to the DGII (19 April 2001).
640. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (28 February 2001), at 139/472.
641. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (1 de March 2001), at 153/472.
642. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (1 March 2001), at 153/472.
643. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (14 March 2001), at 172/472.
644. Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (3 April 2001), at 223/472.
645. Response, note 7 *supra*, Appendix 1, vol. 24: DGII, inspection record 17-006-0001/98-D-V-34 (17 September 2001), at 43/104.
646. *Ibid.*
647. Response, note 7 *supra*, Appendix 1, vol. 24: DGII, inspection record 17-006-0001/98-D-V-34 (19 September 2001), at 68/104.
648. *Ibid.*, at 69/104.
649. Response, note 7 *supra*, Appendix 1, vol. 24: DGII, inspection record 17-006-0001/98-D-V-34 (20 September 2001), at 83/104.
650. *Cf.* Response, note 7 *supra*, Appendix 1, vol. 22: DGII, inspection record 17-006-0001/98-D-V-31 (21 February 2001), at 121/472.
651. Response, note 7 *supra*, Appendix 1, vol. 13: DGII, decision in file B-0002/775 (19 April 2001).
652. *Ibid.*
653. *Ibid.*
654. *Ibid.*
655. Response, note 7 *supra*, Appendix 1, vol. 15: BASF Mexicana, unnumbered doc. (30 May 2001).
656. *Cf.* Response, note 7 *supra*, Exhibit 13: DGII, decision in file B-0002/775 (20 July 2000).
657. See, for example: Profepa, Pollution Sources Branch, decision in file no. B-0002/775 (5 December 2001).
658. BASF Mexicana, letter to the DGII (30 May 2001).
659. BASF Mexicana, letter to the DGII (30 May 2001): data sheet no. 1.
660. *Cf.* Response, note 7 *supra*, Exhibit 13: DGII, decision in file B-0002/775 (20 July 2000).
661. BASF Mexicana, letter to the DGII (30 May 2001): data sheet no. 5.
662. DGII, decision in file B-0002/775 (8 October 2001).

663. Figure derived from: Dames & Moore, note 244 *supra*; Response, note 7 *supra*, Exhibit 13: DGII, decision in file no. B-0002/775 (19 September 2000), map 1.
664. During the Secretariat's review of the records, it was noted that the form on which inspection record 17-006-0001/98-DV-35 was produced has blanks to be filled in to indicate the page number and total number of pages. The form bears the inscription "Page no. [no. in letters] eighty-seven." The phrase "eighty-seven" is starred, and the corresponding footnote reads:
- *reads eighty-seven
should read one hundred five.
- That is, at first inspection record 17-006-0001/98-DV-35 consisted of 87 pages on which facts were recorded up to 29 October 2001. *However*, the record was extended up to page 105 to document the findings of pigments, and also bags containing pigments, up to 31 October 2001.
665. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (15 October 2001), at 44/105.
666. *Ibid.*
667. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (16 October 2001), at 46/105.
668. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (19 October 2001), at 58/105.
669. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (20 and 22 October 2001), at 60-2/105.
670. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (22 October 2001), at 62/105.
671. *Ibid.*, at 63/105.
672. *Ibid.* The sample was identified and labeled as A22-S1-PIG-1 for CRETI analysis.
673. *Ibid.*, at 65/105. The sample was labeled as A22-S2-PIG-1 for CRETI analysis.
674. *Ibid.*
675. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (23 October 2001), at 69/105. The point sample was labeled as aA22-S1-PIG2.
676. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (24 October 2001), at 71/105. The five point samples were: A22-S2-1, A22-S2-2, A22-S2-3, A22-S2-4, and A22-S2-5.
677. *Ibid.*, at 72/105. In this regard, it should be borne in mind that neither the administrative decision of 20 December 2005 nor the environmental law in question distinguishes between "natural soil" and "backfill material."
678. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (25 October 2001), at 77/105.
679. Photo courtesy of a Profepa employee.
680. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (26 October 2001), at 81/105.
681. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (27 October 2001), at 84/105.
682. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (27 October 2001), at 85/105.
683. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (17 October 2001), at 51/105.
684. *Ibid.*
685. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (18 October 2001), at 54/105.
686. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (27 October 2001), at 85/105. It is here in this record where the total number of pages is changed. The immediately preceding record (October 26) goes up to page 87 and it is then noted that the total number of pages in the record is 105. Therefore, a total of 18 pages were added to the end of inspection record 17-006-0001/98-D-V-35 in order to record additional relevant facts.
687. The four pits were distributed as follows: one in sub-area 3 of the offices and restrooms area; two in sub-areas 1 and 2 of the transformers area, and one in the yard and warehouse area. In: Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (30 October 2001), at 91/105.
688. Figure derived from: *Ibid.*
689. *Ibid.*, at 91-2/105.
690. "...the pigment-containing material (scrap) was present only between the two concrete floors." In: Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (31 October 2001), at 97/105.
691. The sample was labeled A24-S2-P16. In addition, the authority took point samples of tezontle mixed with pigment from the transformers area, which were labeled A24-S2-1, A24-S2-2, A24-S2-3, A24-S2-4, and A24-S2-5. In: Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (30 October 2001), at 91-3/105.
692. *Ibid.*, at 93/105.
693. Response, note 7 *supra*, Appendix 1, vol. 27: DGII, inspection record 17-006-0001/98-D-V-35 (31 October 2001), at 99/105.
694. The sample was identified as A22-S3-P16. In: *Ibid.*, at 99-100/105.

695. *Ibid.*, at 105/105.
696. Response, note 7 *supra*, Appendix 1, vol. 28: DGIFC, memorandum no. DGFIC.- 255/2001 (5 November 2001).
697. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (5 November 2001), at 1/67.
698. *Ibid.*
699. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (6, 7, 8 and 9 November 2001), at 5-12/67.
700. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (9 November 2001), at 12/67.
701. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (10 and 12 November 2001), at 14-16/67.
702. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (13 November 2001), at 18/67.
703. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (14 November 2001), at 20/67.
704. *Ibid.*, at 21/67. The samples were labeled API-68, API-69, and API-70.
705. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (15 November 2001), at 26/67.
706. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (16 November 2001), at 27/67.
707. *Ibid.* The sample was labeled AP-71.
708. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (17, 21, 22, and 23 November 2001), at 30-41/67.
709. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (24 November 2001), at 42/67.
710. *Ibid.*
711. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (25 November 2001), at 43/67.
712. *Ibid.*
713. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (27 November 2001), at 45/67.
714. Photo courtesy of a Profepa employee.
715. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (28 November 2001), at 50/67. The sample is labeled A-23-S4-PIG.
716. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (29 November 2001), at 55/67. The inspection record notes samples taken from mounds of pigment-containing soil and labeled API-73, API-74, API-75, API-76 (p. 57).
717. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (30 November 2001), at 59/67. Sampling was performed on 6 December and the samples were labeled A23-S4-P1-C, A23-S4-P2-C, A23-S4-P3-C, and A23-S4-P4-C. In: DGIFC, inspection record no. 17-006-0001/98-D-V-38 (30 November 2001), at 31/35.
718. Photo courtesy of a Profepa employee.
719. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (1 December 2001), at 61/67. On December 3, samples were taken from mounds and labeled API-77 and API-78. In: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (4 December 2001), at 62/67.
720. Response, note 7 *supra*, Appendix 1, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (5 December 2001), at 67/67.
721. Figure derived from: Response, note 7 *supra*: Exhibit 13: DGII, decision in file no. B-0002/775 (19 September 2000), map 1.
722. Response, note 7 *supra*, Appendix 1, vol. 37: DGIFC, decision in file no. B-0002/775 (15 May 2002).
723. Response, note 7 *supra*, Appendix 1, vol. 40: DGIFC, file no. EOO-SVI-DGIFC-0527/200 (11 June 2002).
724. *Ibid.*
725. *Ibid.*
726. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (20 May 2002), at 1/56.
727. *Ibid.*, at 3/56.
728. *Ibid.*, at 5/56.
729. *Ibid.*, at 4/56.
730. *Ibid.*
731. *Ibid.*, at 5/56.
732. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (21 May 2002), at 8/56.

733. *Ibid.*, at 7/56.
734. The restroom drain, which drained the employee restrooms, was found to contain clumps of pigment, which gives an indication of the conditions under which the Facility was operating.
735. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (22 May 2002), at 9/56.
736. *Ibid.*, at 9-10/56. This record is where the sampling nomenclature was standardized, as follows: DH (historical drain), Rn (record no.), and sampling depth. Sediment sampling in the first record was recorded as DH-R1-0.0--13.0. The record drawn up on May 24 (p. 12) clarified that EX refers to sampling done exterior to the drainage system.
737. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (23 May 2002), at 11/56.
738. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (27 May 2002), at 16/56.
739. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (28 May 2002), at 18/56.
740. *Ibid.*, at 22/56.
741. Figure derived from: Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (27 May 2002), at 16-22/56, and vol. 58: DGIFC, decision no. DGFIC-053/2004 in file B-0002/0775 (31 August 2004).
742. Response, note 7 *supra*, Appendix 1, vol. 41 :DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (31 May 2002), at 25/56.
743. *Ibid.*, at 23-4/56.
744. *Ibid.*, at 24/56. The following nomenclature was used: DHEX-02-1 (0.0-0.60), DHEX-02-2 (3.10–3.70).
745. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (4 June 2002), at 27/56.
746. *Ibid.*, at 27-8/56.
747. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (5 June 2002), at 29/56.
748. *Ibid.*, at 30/56.
749. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (6-7 June 2002), at 31-4/56.
750. Response, note 7 *supra*, Appendix 1, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (10 June 2002), at 34/56.
751. *Ibid.*, at 36-9/56.
752. Response, note 7 *supra*, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (17 June 2002), at 42/56.
753. *Ibid.*, at 43/56.
754. Bernardita Concepción Alegría García, public broker no. 2 of the state of Morelos.
755. Response, note 7 *supra*, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (20 June 2002), at 48/56.
756. Response, note 7 *supra*, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (21 June 2002), at 50-1/56. In addition, the agreement with Profepa for access to areas 15 and 21 is documented in: Response, note 7 *supra*, exhibit 5: Agreement between the Director, Pollution Source Inspection and Roberto Abe Almada (16 May 2002). The document specifies that the access is conditional on a civil settlement with the Company BASF Mexicana.
757. Response, note 7 *supra*, vol. 41: DGIFC, inspection record no. 17-0006-0001/98-D-V-41 (21 June 2002), at 51/56.
758. *Ibid.*, at 52/56. The samples were identified as FS-F and FS-P1.
759. *Ibid.*, at 53-6/56.
760. Submission SEM-06-003, Appendix 13: DGII, decision in file no. B-0002/775 (26 July 2002).
761. Response, note 7 *supra*, vol. 58: DGIFC, decision no. DGFIC-053/2004 in file B-0002/0775 (31 August 2004).
762. *Ibid.*
763. *Ibid.*
764. Response, note 7 *supra*, vol. 55: BASF Mexicana, document in file no. B-0002/0775 (18 January 2005), at 2.
765. *Ibid.*
766. *Ibid.*
767. *Ibid.*, at 7.
768. *Ibid.*, at 12.
769. Response, note 7 *supra*, vol. 55: DGIFC, decision no. DGIFC-007/2005 in file no. B- 0002/775 (25 February 2005), at 4.
770. *Ibid.*, at 5.
771. *Ibid.*, at 6-7.
772. Response, note 7 *supra*, vol. 55: DGIFC, decision no. DGIFC-019/2005 in file no. B- 0002/775 (29 April 2005).
773. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-025/2005 (9 May 2005), at 1/6.
774. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-026/2005 (9 May 2005), at 1/8.
775. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-025/2005 (9 May 2005), at 3/6.

776. *Ibid.*, at 4/6.
777. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-028/2005 (13 May 2005), at 13/32.
778. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-028/2005 (14 and 16 May 2005), at 17-18/32.
779. Photo courtesy of a Profepa employee.
780. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-028/2005 (17 May 2005), at 20/32.
781. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-028/2005 (18 May 2005), at 22/32.
782. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-028/2005 (21 May 2005),
783. *Ibid.*, at 30/32.
784. *Ibid.*, at 32/32.
785. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (23 May 2005), at 1/24.
786. *Ibid.*, at 4/24.
787. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (24 May 2005), at 5/24. The text of the inspection record occasionally leads to confusion, stating that sub-areas 1 and 2 are situated along one side of the chapel (area 21), whereas elsewhere they are situated along one side of area 15 (restrooms and offices). In other parts of the record, the areas are designated as: “sub-areas 1 and 2 of area 15 and sub-area 2 of the area of influence.”
788. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (25 May 2005), at 7/24.
789. *Ibid.*, at 7/24. The numbers of the corresponding samples were not identified in the inspection record.
790. *Ibid.*, at 7/24.
791. *Ibid.*, at 8/24.
792. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (26 and 30 May 2005), at 10 and 16/24.
793. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (26 May 2005), at 11-12/24. The samples were API-AC3-M1, API-AC3-M2, API-AC3-M3, and API-AC3-M4, taken 14–18 May 2005.
794. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (30 May 2005), at 16/24.
795. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (31 May 2005), at 18-19/24.
796. *Ibid.*, at 21-3/24.
797. *Ibid.*, at 24/24.
798. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (28 May 2005), at 15/24. The figure also takes account of the bags noted in the records drawn up on 30-31 May 2005.
799. Public Registry of Property and Commerce of the State of Morelos, trust recorded under no. 226, folio 115, vol. XXXI, vol. 1, section 1, series C and under personal property electronic folio (*folio electrónico mobiliario*) no. 382046 1, notarized entry no. 58533 of 6 August 2010 drawn up by Héctor Guillermo Galeano Inclán, notary public no. 109004133 of the Federal District.
800. Response, note 7 *supra*, vol. 54: Decision no. DGIC-053/2004 (31 August 2004) and vol. 55: DGIFC-007/2005 (25 February 2005).
801. Response, note 7 *supra*, Exhibit 1: Minister of Environment and Natural Resources, decision on administrative review action filed by BASF Mexicana (20 April 2006).
802. The information was requested during a meeting held February 2013 with representatives of the Company, as well as in an e-mail of 26 February 2013 from the Secretariat’s Legal Officer to a representative of BASF Mexicana.
803. Grupo van Ruymbeke, Vidambiente, “Limpieza final de drenajes y entorno de la planta de pigmento,” final report, June 2009, Mexico, at 1.
804. *Ibid.*
805. *Ibid.*
806. *Ibid.*, at 3.
807. *Ibid.*, at 4.
808. *Ibid.*, at 9.
809. *Ibid.*, at 13.
810. *Ibid.*, Appendix A: Locator maps of the samples, and Appendix B: Table de results.
811. Interview with BASF Mexicana officials, 14 February 2013.
812. Cf. TFJFA, Fifth Metropolitan Regional Chamber, decision in file 20683/06-17-05-5 (22 May 2007).
813. Cf. Response, note 7 *supra*, vol. 55: DGIFC, inspection record no. DGIFC-AI-MOR.-029/2005 (28, 30, and 31 May 2005), at 15-24/24.
814. Submission SEM-03-003, note 2 *supra*, at 10.
815. Response, note 7 *supra*, at 57.
816. CPF Article 415 paragraph I. Article added to the CPF by the revision published in the DOF on 13 December 1996.

817. CPF Article 416 paragraph I. Article added to the CPF by the revision published in the DOF on 13 December 1996.
818. CPF Article 421. Article added to the CPF by the revision published in the DOF on 13 December 1996.
819. Response, note 7 *supra*, vol. 29: DGIFC, decision in file no. B-0002/775 (5 December 2001).
820. Response, note 7 *supra*, vol. 29: DGIFC, inspection record no. 17-006-0001/98-D-V-36 (28 November 2001), at 51/67.
821. Response, note 7 *supra*, vol. 29: DGIFC, decision in file no. B-0002/775 (5 December 2001).
822. Legal Affairs Branch of the Legal and International Affairs Office of the PGR, file no. SJAI/DGAJ/7123/2013 (9 May 2013).
823. Legal Affairs Branch of the Legal and International Affairs Office of the PGR, file no. SJAI/DGAJ/8890/2013 (13 June 2013).
824. This complaint (investigated by PGR), is legally different from the type of citizen complaints (investigated by Profepa) referred to in section 7.4 of this factual record.
825. PGR, Special Unit for Investigation of Federal Offenses (*Subprocuraduría de Investigación Especializada en Delitos Federales*), Document no. SIEDF/00219/2008, which contains the declaration re Not Bringing Criminal Charges (31 January 2008), at 2 [Declaration 6243/FEDA/98].
826. *Idem*.
827. *Ibid.*, at 5.
828. The studies were conducted by Laboratorios DIFAZA and Laboratorios de Control Industrial, S.A. de C.V. Declaration 6243/FEDA/98 *supra* note 825 does not establish the results of the sampling.
829. *Idem*.
830. Official Mexican standard NOM-001-ECOL-1996 Which Establishes the Maximum Permissible Limits of Contaminants in Wastewater Discharges in Bodies of Waters and on National Properties, DOF 6 January 1997.
831. Declaration 6243/FEDA/98 *supra* note 825, at 3.
832. Consequently, the provisions of the Federal Monuments and Archaeological Zones Act (*Ley Federal sobre Monumentos y Zonas Arqueológicas*) apply to this site. Although a determination in this sense had already been made by the PGR delegation in Cuautla, it was reiterated by the Special Attorney as a determining factor in the criminal investigation.
833. DGIL, Document no. EOO-SVI-459/99 (26 August 1999), in: Declaration 6243/FEDA/98 *supra* note 825, at 8.
834. Conagua, Document no. BOO.00.02.02.2 -5275 (27 August 2001), in: Declaration 6243/FEDA/ 98 *supra* note 825, at 11.
835. Profepa, unnumbered document (10 August 2001), in: Declaration 6243/FEDA/98, *supra* note 825, at 11.
836. DGIFC, unnumbered document (19 March 2002), in: Declaration 6243/FEDA/98, *supra* note 825, at 15.
837. Expert Medical Official, unnumbered document (29 October 2001), in: Declaration 6243/FEDA/98, *supra* note 825, at 13.
838. Expert designated by the Company, unnumbered document (2 April 2002), in: Declaration 6243/FEDA/98, *supra* note 825, at 15.
839. Conagua Regional Manager in Morelos, Document no. BOO.00.R05.07.4/2944 (26 August 2002), in: Declaration 6243/FEDA/98 *supra* note 825, at 17.
840. DGPPA, document no. DGCPPA-AUX-1849/02 (5 November 2002), in: Declaration 6243/FEDA/98 *supra* note 825, at 17.
841. CFPP Article 131 reads as follows: “Should the investigatory actions not produce sufficient evidence to refer the matter to the courts and further actions are not apparent, but information could be collected at a later date to pursue the investigation, the file shall be suspended until such time as such data materializes. In the interim, the police shall conduct investigations aimed at clarifying the facts.”
842. UEIDAPLE, document no. 586/UEIDAPLE/3/2007 (12 March 2007), in: Declaration 6243/FEDA/98 *supra* note 825, at 18.
843. Declaration 6243/FEDA/98 *supra* note 825, at 23.
844. Term used in Mexican law for offenses specified in CPF Articles 415, section I, and 416, section I.
845. Declaration 6243/FEDA/98 *supra* note 825, at 8-18.
846. *Ibid.*, at 20.
847. PGR, Legal and International Affairs Office, Legal Affairs Branch, file no. SJAI/DGAJ/01417/2013, Notification of availability of information (7 February 2013) concerning Infomex request no. 0001700237112 (27 November 2012).
848. PGR, Office of Deputy Attorney for Criminal Proceedings “A,” Control of Criminal Proceedings Division “A,” file no. DGCPPA-AUX-2790/99, which contains the declaration of *nolle prosequi* (23 September 1999), at 1 [NEAP-6244/99 Declaration].
849. NEAP-6244/99 Declaration, note 848 *supra*, at 2.
850. *Ibid.*
851. *Ibid.*
852. *Ibid.*
853. *Ibid.*
854. *Ibid.*
855. *Ibid.*

856. *Ibid.*, at 3.
857. *Ibid.*
858. *Ibid.*
859. *Ibid.*, at 4.
860. *Ibid.*, at 4-5.
861. *Ibid.*, at 5.
862. *Ibid.*, at 6.
863. *Ibid.*, at 5.
864. *Ibid.*, at 6.
865. *Ibid.*
866. *Ibid.*
867. *Ibid.*, at 7.
868. *Ibid.*
869. *Ibid.*, at 7.
870. *Ibid.*, at 10.
871. Deputy Attorney for Criminal Proceedings “A,” *nolle prosequi* decision (24 September 1999) in relation to criminal investigation 6244/FEDA/98.
872. See *supra* section 10, “Enforcement of LGEEPA Article 170 with respect to the alleged illegal dumping of hazardous waste in the community of El Hospital.”
873. See *supra* section 11, “Enforcement of LGEEPA Articles 134, 135, section III, 136, 139, 150, 151, 152 *bis*, 169 and 170; and RRP Articles 8, section X, 10 and 12, as well as Mexican official standards NOM-052-Semarnat-1993 and NOM-053-Semarnat-1993, with respect to the alleged illegal dumping of hazardous waste at the Facility.”
874. See *supra* section 12, “Enforcement of Articles 415, section I, 416, section I and 421 of the Federal Penal Code (*Código Penal Federal*—CPF), in force prior to 6 February 2002.”
875. See *supra* para 249.
876. See *supra* para 250.
877. See *supra* para 240.
878. See *supra* para 252.
879. See *supra* para 262.
880. See *supra* paras 267 and 268.
881. See *supra* para 271.
882. See *supra* para 272.
883. See *supra* para 279-292.
884. See *supra* para 293.
885. See *supra* para 294.
886. See *supra* para 304 and footnote.
887. See *supra* para 331.
888. See *supra* para 335.
889. See *supra* section 11.2.
890. See *supra* paras 343 and 344.
891. See *supra* para 347.
892. See *supra* para 348.
893. See para 353 and *supra* section 7.6.
894. See *supra* section 12.
895. See *supra* section 12.2.
896. See *supra* para 377 and section 10.2.
897. See *supra* paras 382–384.
898. See *supra* paras 385 and 386.
899. See *supra* paras 153 and 154.
900. CEC Council, Summary Record of the Twentieth Ordinary Session of the Council.

Appendices



APPENDIX 1

Council Resolution 12-03

15 June 2012

COUNCIL RESOLUTION: 12-03

Instruction to the Secretariat of the Commission for Environmental Cooperation regarding the consolidated submissions on enforcement matters SEM-06-003 and SEM-06-004 asserting that Mexico is failing to effectively enforce Articles 134, 135, paragraph III, 136, 139, 150, 151, 152 bis, 169, and 170 of the *Ley General del Equilibrio Ecológico y la Protección al Ambiente (LGEEPA)*; 68, 69, 75 and 78 of the *Ley General para la Prevención y Gestión Integral de los Residuos (LGPGIR)*; 421 of the *Código Penal Federal (CPF)*, as well as Articles 415, paragraph I, and 416, paragraph I, of the CPF as in force before February 6, 2002; Articles 8, paragraph X, 10 and 12 of the *Reglamento de la LGEEPA en Materia de Residuos Peligrosos (RRP)*, and Mexican Official Standards (*Normas Oficiales Mexicanas*) NOM-052-SEMARNAT-1993¹ and NOM-053-SEMARNAT-1993²

THE COUNCIL:

SUPPORTIVE of the process provided for in Articles 14 and 15 of the *North American Agreement on Environmental Cooperation (NAAEC)* regarding submissions on enforcement matters and the preparation of factual records;

CONSIDERING the submission filed on 17 July 2006 by Myredd Alexandra Mariscal Villaseñor, Justina Domínguez Palafox, Félix Segundo Nicolás, Karina Guadalupe Morgado Hernández, Santos Bonifacio Contreras Carrasco, Florentino Rodríguez Viaira, Valente Guzmán Acosta, María Guadalupe Cruz Ríos, Cruz Ríos Cortés and Silvestre García Alarcón; the submission filed on 22 September 2006 by Mr. Roberto Abe Almada, and the response provided by the Government of Mexico on 10 January 2007;

HAVING REVIEWED the 12 May 2008 notification by the Secretariat recommending the development of a factual record with respect to certain assertions made by the submitters;

MINDFUL that the purpose of the final factual record is to present facts pertinent to assertions that a Party is failing to effectively enforce its environmental law,

FURTHER MINDFUL that a factual record should only be prepared on assertions of a Party's failure to effectively enforce a law in force at the time the facts asserted in the submission occurred,

TAKING INTO ACCOUNT that the LGPGIR entered-into-force on 6 January 2004; and

FURTHER TAKING INTO ACCOUNT that LGPGIR *Transitory Article 4*, expressly prohibits the application of the LGPGIR to facts and actions pre-dating the entry-into-force of the legislation as well as any ongoing consequences of such actions.

1. This *Norma Oficial Mexicana* was originally issued under the name "NOM-CRP-001-ECOL/93, which establishes the characterization of hazardous wastes, a listing of hazardous wastes, and their maximum acceptable levels of toxicity", was later renamed "NOM-052-ECOL-1993", and it is currently in effect under the name NOM-052-SEMARNAT-2005).

2. This *Norma Oficial Mexicana* was originally issued under the name "NOM-CRP-002-ECOL/93, which establishes the procedure to examine the components of a hazardous waste in order to determine its toxicity levels", was later renamed "NOM-053-ECOL-1993", and is currently in effect under the name NOM-053-SEMARNAT-1993.

HEREBY UNANIMOUSLY DECIDES:

TO INSTRUCT the Secretariat to prepare a factual record in accordance with Article 15(4) of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation*, regarding the assertions that Mexico is failing to effectively enforce its environmental legislation in connection with the following:

- a) Article 170 of the LGEEPA in connection with the alleged illegal dumping of hazardous waste in the community of Ex Hacienda de Nuestra Señora de la Concepción El Hospital, in the Municipality of Cuautla, State of Morelos, and the alleged crimes against the environment, during the operation, shutdown and dismantling of the facility operated by the company BASF Mexicana, S.A. de C.V.;
- b) Articles 134, 135, paragraph III, 136, 139, 150, 151, 152 bis, and 169 of the LGEEPA; 421 of the CPF, as well as Articles 415 paragraph I, and 416 paragraph I, of the CPF as in force before February 6, 2002; Articles 8 paragraph X, 10 and 12 of the RRP; and Mexican Official Standards NOM-052-SEMARNAT-1993 and NOM-053-SEMARNAT-1993, regarding the alleged illegal dumping of hazardous waste in the Facility and the alleged illegal dumping of hazardous waste in the community of Ex Hacienda de Nuestra Señora de la Concepción El Hospital, in the Municipality of Cuautla, State of Morelos, and the alleged crimes against the environment, during the operation, shutdown and dismantling of the facility operated by the company BASF Mexicana, S.A. de C.V.

TO DIRECT the Secretariat to provide the Council with its overall work plan for gathering the relevant facts, as well as to keep this Council informed of any future changes or adjustments to such plan; to provide the Council with the draft Factual Record and to provide the Parties with the opportunity to provide comments on the accuracy of the factual record in accordance with Article 15 (5) of the NAAEC.

APPROVED BY THE COUNCIL:

Dan Mc Dougall
Government of Canada

Enrique Lendo Fuentes
Government of the United Mexican States

Michelle DePass
Government of the United States

APPENDIX 2

**Submission SEM-06-003 (*Ex Hacienda El Hospital II*) and
Submission SEM-06-004 (*Ex Hacienda El Hospital III*)
(consolidated)**

[UNOFFICIAL TRANSLATION]

RE: SUBMISSION ON THE ENFORCEMENT OF
MEXICAN ENVIRONMENTAL LAW

COMMISSION FOR ENVIRONMENTAL COOPERATION

393, Rue St. JACQUES QUEST, BUREAU 200

MONTREAL (QUÉBEC) CANADÁ H2Y 1N9

I, the undersigned, MYREDD ALEXANDRA MARISCAL VILLASEÑOR, acting for myself and as attorney for Justina Domínguez Palafox, Félix Segundo Nicolás, Karina Guadalupe Morgado Hernández, Santos Bonifacio Contreras Carrasco, Florentino Rodríguez Viaira, Valente Guzmán Acosta, María Guadalupe Cruz Ríos, Cruz Ríos Cortés, and Silvestre García Alarcón, as per notarized power of attorney no. 28440 drawn up before Notary Public No. 4 of the Judicial District of Cautla, Morelos, Neftalí Tajonar Salazar, a copy of which is attached as Appendix 1 hereof, giving as domicile for the purposes of giving and receiving notice the one located at Hermenegildo Galeana No 4 antes 2, despacho 103, Colonia Centro, Cuernavaca Morelos, C.P. 62000, and e-mail myredd@yahoo.com, hereby, in accordance with Articles 14 and 15 of the North American Agreement on Environmental Cooperation, present the following:

SUBMISSION

That Mexico be sanctioned for “**failure** to enforce the environmental laws” and for “failure to **effectively** enforce the applicable environmental laws” on the part of the competent authorities as follows:

1. **Failure to punish illegal acts on the part of BASF Mexicana, S.A. de C.V., hereinafter referred to as “BASF” or “the Company,” at its facility in the municipality of Cautla, Morelos during the period running from 1973 to 1997.**
2. **Failure to sanction the Company for violations of various environmental laws, regulations, and standards as demonstrated in the executive summary of the Auditing Plan put into effect by the environmental authority at the Company’s facilities in Cautla, Morelos in 1996-1997.**
3. **Failure to perform the studies or diagnostics necessary to quantify the scale and severity of the environmental and health impacts caused by the Company at its facility when notified of the closing thereof in 1997.**
4. **Failure to order the prevention and control measures necessary to avoid the spread of the contamination caused by the Company in Cautla, Morelos, which was partially confirmed in 2000–2002 when more than 11,800 tons of contaminated earth and hazardous waste was sent from the site for disposal.**

BACKGROUND

For better understanding of the official negligence and failure to effectively enforce the laws on the part of the Mexican authorities, we consider it relevant to explain to the Commission the problem of contamination that has affected the residents of Ex Hacienda El Hospital in Cuautla, Morelos, Mexico, from 1973 to date. For this purpose, it is indispensable to understand the characteristics of the initial source of the contamination, which leads us to the facility that was occupied by the Company in the central part of the hacienda of Nuestra Señora de la Concepción.

The premises occupied by the Company, measuring approximately 5 300 m², are in the center of the hacienda, which has a total area of approximately 43 000 m² and has been owned for approximately 70 years by the Abe family.

Appendix 2 contains photographs of the facility taken on 3 September 1997 when the premises were returned by the Company to their owners (Profepa file B-0002/0750) due to the termination of the lease. An examination of these photographs yields the following observations:

- The company's utter disregard for its environmental and health obligations to its own employees and to the neighbors.
- The official negligence of the environmental authority in failing to act of its own right instead of waiting for a public complaint filed by various residents and by the Abe family (Profepa B-0002/0750), since the irregularities committed by the Company were obvious, and in failing to impose sanctions on the transnational and to order preventive measures to prevent the contamination from spreading.

After all, any moderately qualified environmental technician could have predicted the consequences of the observable contamination for health and the environment. It was clear that this contamination would spread through the subsoil unless a set of measures were taken to prevent this eventuality. However, **the Mexican environmental authorities did nothing whatsoever to prevent the spread of the contamination.** For these reasons, we consider the environmental authority to be directly responsible for the spread of the contamination in El Hospital, as from the date when the community and the owner filed the first public complaint in 1998 (file B-0002/0750), or even earlier, **since the Company had been operating in a noncompliant fashion for over twenty years. This is evident from the conclusions of an environmental audit** conducted by Profepa at no charge to the Company but aborted by the Company. By this means, the environmental authority learned in detail of the contamination problem, which represented a violation or violations of the legal provisions set out in **Appendix 3.**

There is a second public complaint referring to the local residents, filed by México Comunicación y Ambiente A.C. with Profepa on 25 October 2005 (**Appendix 26**) and presenting new technical evidence (geophysical studies) of contamination persisting on some lots that were filled or graded with toxic waste-contaminated demolition material. This complaint has still not been addressed. While it is true that certain Profepa inspectors have visited the site, no precautionary measures have yet been ordered, nor has the Company been ordered to clean up the site or indemnify the affected parties.

As stated above, the Mexican authorities' negligence in this matter dates from the beginning of the Company's operations on the site. The neighboring residents filing this submission hereby attest that fugitive dust emissions and pigmented wastewater discharges were a constant, yet there is no longer any documentary evidence of that era in the file opened by Profepa against the Company.

The oldest official information we have is contained in the executive summary of the environmental audit performed on the Company and its facility on the premises in Ex Hacienda El Hospital, Municipality of Cuautla, Morelos, April 1997 (Appendix 3), at no cost to the Company.

This was a voluntary environmental audit performed with public funds by Profepa. **By means of this audit, the authority learned of the severity and consequences of the contamination caused by the Company,** and if for

some reason or circumstance we are unaware of – but we do not believe that there is any such justification – the authorities could not or did not wish to act at that time (April 1977), they could and should have acted upon the filing of the public complaint in 1998, which, **in our opinion, identified serious omissions on the part of the environmental authority and failures to effectively enforce the environmental laws in force at that time.**

Unfortunately, the instrument known as the “voluntary environmental audit” (which is expressly mentioned in the NAAEC) was misused in certain cases. The companies that registered for the program enjoyed a degree of immunity, though this was never enshrined in law. They ceased to be inspected, and their noncompliance was overlooked in return for their willingness to register for the program, in which they were given advantageous deadlines within which to regularize their situation. In addition, in the early stages of the program, the federal government paid the total cost of the audit in some cases; in return, the companies committed to taking the corrective measures arising from the audit, which unfortunately never happened in the case at hand. The company failed to keep its promise, **thereby, in our view, transmuting immunity into impunity with the full knowledge and consent of the environmental authority.**

These environmental violations and instances of noncompliance were confirmed in 2000–2002 during the restoration of the leased premises, including the cleanup of the affected area of the plant, which theoretically took place under Profepa’s supervision. Profepa was able to confirm that over **11.8 million kg of soil had high concentrations of heavy metals (Pb, Cr, Mb, and others)** and, due to the hazardousness thereof, had to be sent for controlled disposal over a thousand kilometers away in Mina Nuevo León, **and that said contaminated soil had been in direct contact with the water table. However, despite the obvious risk this situation posed, Profepa did not foresee that the contamination would spread to other areas of the Abe family’s property and the village following the direction of groundwater flow.** In this case, then, **the Mexican environmental authorities were systematically negligent and indifferent to the environmental problems caused by the Company.**

From the moment it learned of the environmental problems at issue – whether as a result of the environmental evidence related to pigment leaks caused by the lack of emission control equipment or the discharge of large volumes of untreated pigmented wastewater into the Espíritu Santo irrigation canal; or **the environmental audit** performed free of charge by Profepa but ultimately aborted by the Company; or **the inspection visit** that took place following the complaint filed by the property owner and certain residents after the Company returned the premises to their owner; or the evidence of environmental harm arising during the remediation process (2000–2002) supervised by said authority – Profepa **should have ordered pollution prevention and control measures and should have notified the health authorities** and prevented the health effects of these toxic materials since, as discussed above, the Company was operating under appalling conditions and should have been considered a **public health risk.**

We know that in 1973, the Company leased an area of approximately 2 000 m² on part of the area of Ex Hacienda de Nuestra Señora de la Concepción (“El Hospital”) in Cuautla, Morelos, owned by the Abe Almada family. This area was originally rented by a former employee of the Company surnamed Von Bretano, who acted as a supplier to the German company BASF, the owner of Ex Hacienda being the Abe family. Shortly afterward, the Company requested an expansion of the leased area to approximately 5 300 m² on what had once been the premises of a sugar mill.

We are informed that the leases were for five-year terms and were repeatedly renewed until 1993. The owners of the property (the Abe family) inform us that in 1995 the Company notified them of its wish to terminate the lease early. It told them that it would return the property to them on 31 August 1997.

On 3 September 1997 the Abe family legally recovered the property, as appears from Profepa administrative files B-0002/0750 and B-0002/775.

Further to this, public complaints were filed with Profepa by some neighbors and by the owners, as appears from the above-mentioned files. In addition, several legal proceedings were brought by the owner against the Company.

We are informed that these proceedings concluded, in respect of the owners, with a judicial settlement between the Abes and the Company.

In parallel with the legal proceedings, Profepa visited the premises formerly occupied by the Company **and only a few of the neighboring lots**, tardily addressing the aforementioned public complaints, as attested by the decision of 1 July 1998 by Lic. Artemio Roque Álvarez, Profepa's Director General of Industrial Inspection, in file B-0002/0750 (**Appendix 4**). We must emphasize that the measures taken by Profepa, on this particular point, **in addition to being tardy, were incomplete, in that some of the residents whose property the Company had graded with hazardous waste**, or who had purchased contaminated demolition materials from the Company for construction of their makeshift dwellings and for other use, failed to return drums, boards, bricks, sheet metal, and other items acquired during dismantlement of the facility, unaware of the hazardousness thereof and/or fearful that once the contaminated materials and debris were removed their dwellings would not be rebuilt or the materials would not be replaced with nonhazardous equivalents; and yet **the environmental authority, which undoubtedly knew of the risks to health and the environment posed by the aforementioned hazardous wastes, did not make a detailed inventory of the problem, nor did it order preventive measures to avert the dispersal of the contaminants to other lots and into the water table.**

My clients and other residents of the locality of El Hospital stated to me that during the time when the Company was operating, it was common to see fugitive dust emissions coming from the site and to observe that the water emerging from the factory's two drains was colored with blue, red, and yellow pigments (inorganic chromium-, lead-, and molybdenum-based pigments among others). One of the drains was discharging wastewater directly into a stream flowing into the village and used by the residents for washing clothes and utensils, and even for personal hygiene. The other drain discharged contaminated effluent into the Espíritu Santo irrigation canal, which was used for irrigation of 40 ha of crops. **This practice undoubtedly affected the health of the residents and the environment, as appears from studies performed by UAM-Azcapotzalco (Appendix 5).** The source of this contamination problem clearly existed before 1 July 1998, the date of the aforementioned decision (**Appendix 4**).

As is evident from the Profepa decision of 20 July 2000 (**Appendix 6**), signed by Lic. Artemio Roque, the urgent measures contained in the administrative decision of 1 July 1998 that is mentioned in his second preamble clause **are not mentioned in any of the seven provisions of said administrative act**, even though more than two years had elapsed since the administrative decision – proof of a patent failure to enforce the administrative decision.

During 1996–1997, Profepa conducted an environmental audit of the facility in question, while the Company was fully operative, as attested by a copy of the executive summary of said audit. The audit provides evidence of multiple violations of the applicable law, none of which have given rise as yet to any sanction whatsoever being imposed by the competent authority on the violator BASF (**Appendix 3**), **nor has the relevant environmental assessment been performed, nor have any preventive measures been implemented so as to prevent the spread of the contamination to neighboring lots.**

Various studies and expert reports have been produced on the lot owned by the Abe family and on neighboring lots, by **Dr. Roberto Flores Ortega, a geophysicist, and by Manuel Murad Robles, a chemical engineer and an environmental engineering and soils consultant.** The results of this work show that **contamination persists in the area in question (Appendices 7–10).** This obvious fact **is confirmed by the UAM Azcapotzalco studies** contained in Appendix 5 and by notarized affidavits of 14 and 17 May 2005 (**Appendices 11–12**).

In regard to contaminated soils and hazardous waste, the problem is in fact more serious, because **the company buried a large quantity of hazardous waste, basically consisting of sacks of (probably substandard) chromium-, lead-, and molybdenum-based yellow and orange pigments. These have now been found at a number of sites**, as per notarized affidavits (**Appendices 11–12**). In addition, as stated above, the Company gave or sold cheap to former employees and residents a variety of hazardous waste-contaminated demolition materials,

packaging materials, boards, drying trays, and other materials that had been in contact with or contained highly toxic and persistent hazardous waste (**Appendices 4 and 6**), with the knowledge of the authorities. However, Profepa **did not make sure that these were all fully recovered; worse, the environmental authority has not yet conducted an inventory of all the waste dispersed in the community of El Hospital, nor has it conducted its own assessment of the environmental issues arising from these facts. As a consequence, it has not implemented prevention or control measures to avert the spread of the contamination.**

We feel it is relevant to alert the commission to the way in which Profepa carried out the site characterization work, since it is our view that in some instances it overstepped its authority while in others **it based its actions exclusively on statements made by the Company that caused the problem**, and in still others showed ignorance of technical matters.

The assessment of the contamination on the premises originally occupied by the BASF plant was carried out directly by persons hired by the Company. As appears in file B-0002/775, the assessment was based on a limited number of samples, giving rise to a *sui generis* cleanup plan. BASF and Profepa signed an agreement whereby the Company would perform the cleanup, and when the Company considered the extent of the cleanup to have reached the required level, it would notify Profepa so that the latter could take samples of the ground and walls and declare the site to have been effectively cleaned up. **In so doing they agreed that the extracted soil would not be analyzed**, since the generator had earlier decided to send it for controlled disposal. This was in violation of the law and the procedure BASF was originally ordered to carry out (**file B-0002/775, establishing BASF's obligation to characterize the soil before sending it for disposal**). This procedure, in addition to being irregular, prevented the authority from gaining absolute clarity as to the characteristics, hazardousness, and concentration of the waste that had been in contact with the water table for over twenty years and ordering preventive measures that would prevent the spread of the contamination to neighboring lots.

We present some of the results of the contaminated soil tests contained in the file that were performed on the premises formerly occupied by BASF. From these it may be observed that the heavy metal contamination extended beyond these premises. In addition, in some cases the concentrations increase with depth, demonstrating that the contamination was carried down through the water table, another fact that was apparently not noted by the environmental authority (**Appendix 6**).

Profepa asserts that BASF completed the cleanup work it was authorized to do on the premises of the plant (decision of Ing. Coello of 26 July 2002) (**Appendix 13**). It claims to substantiate this with various assessments of areas that were cleaned up, basically with the test results provided by the remediator hired by BASF. But this does not mean that the premises are now cleaned up; rather, it means that the environmental authority was tripped up by its own procedure. Since it never made its own assessment, and never ascertained whether 100% of the existing contamination was ever in fact included in the cleanup plan prepared by BASF, it had no reference point from which to state that the entire premises had been cleaned up, as may be seen in Profepa file B-0002/775.

Notwithstanding the fact that prior to the sanctioning of the Company by the authority in December 2005 (**Appendix 14**), Profepa had been presented with scientific evidence that that part of the premises had not been cleaned up (**Appendices 7 and 9**), the environmental authority notified the owner that in its opinion, that was an area in which the approved cleanup work was completed (**Appendix 15**). **This exhibits the authority's failure to effectively enforce the law.**

The evidence found (**Appendices 16, 11, and 12**), **such as the existence of clandestine drainages that were installed for the purpose of directly discharging some untreated process effluent, as well as the existence of illegal hazardous waste burial**, clearly shows that the contamination on the site was much more serious than BASF initially admitted in the remediation or cleanup plan submitted to Profepa. **BASF clearly omitted information from that plan**, which basically focused on a superficial clean up of walls and soils contaminated with fugitive dust caused by the inefficient, insufficient process dust retention systems, themselves constituting a violation of the environmental law then in force.

ACTS OR OMISSIONS CONSTITUTING THE TOTAL FAILURE OF ENFORCEMENT OF, OR THE FAILURE TO EFFECTIVELY ENFORCE, MEXICAN ENVIRONMENTAL LAW

- I. Total failure of enforcement of the applicable environmental law, as substantiated in the executive summary of the auditing plan of action for BASF Mexicana, S.A. de C.V., at its Cuautla, Morelos facility (**Appendix 3**), where, operating during the years 1996–1997, the Profepa-accredited environmental auditor “Topografía, Estudios y Construcción, S.A. de C.V.,” supervised by Oso Ingeniería, S.A. de C.V. (also Profepa-accredited), identified as “deficiencies” **the following instances of noncompliance with the applicable legal provisions:**
1. **Air** “ATM” 001, 002, 003, 004, 005, 006, 007, 008, 009, and 010 (pp. 13–17, Appendix 2).
 2. **Water** “AGA” 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, and 012, (pp. 18–25, Appendix 2).
 3. **Hazardous waste** “RSP” 001, 002, 003, 004, 005, 006, 007, 008, and 009 (pp. 18–25, Appendix 2).
 4. **Waste** “SOL” 001, and 002 (pp. 29–30, Appendix 2).
 5. **Soil and subsoil** “SYS” 001 and 002 (pp. 3 and 31, Appendix 2).

The violations of various laws and regulations are itemized under each of the deficiencies observed by the auditor and supervisor. **We emphasize that up to the date of this submission, the Company has not been sanctioned for any of the aforementioned violations.**

- II. Total failure of enforcement, in that the environmental audit is a self-regulatory tool that came into being in Mexico as a consequence of the North American Free Trade Agreement (NAFTA), and at its beginnings the Mexican federal government paid for a series of audits with its own funds and international funding in order to promote this tool, as occurred in the present case, **since the audit performed by the Company in 1996–1997 took place at no cost to the Company, thus violating the applicable environmental law and elementary principles of ethics, since in the first place BASF should not have accepted such work free of charge because it had already, in 1995, notified the lessor of its facility in Cuautla of its intent to terminate the lease early, announcing that it would vacate the premises on 31 August 1997, and was in fact evicted from the premises by the owner on 3 September 1997 as appears in Profepa files B-0002/0750 and B-0002/775.**
- III. Total failure of enforcement, since when BASF refused to sign the auditing plan of action, whose executive summary is appended to this submission (**Appendix 3**), the Office of the Deputy Attorney for Environmental Auditing (*Subprocuraduría de Auditoría Ambiental*) should have referred the information produced by the auditor to the Office of the Deputy Attorney for Inspection (*Subprocuraduría de Verificación*) **and the latter should have immediately sanctioned the violator, which has not occurred to date.**
- IV. Total failure of enforcement, in that the environmental authority, acting for itself or by the National Institute of Ecology (*Instituto Nacional de Ecología*—INE), should have conducted studies to identify the scale and severity of the environmental and health harms at the site, on neighboring lots, and to the residents, **as well as taken the steps necessary to prevent the spread of the contamination, control the contamination, and reduce the adverse environmental impacts thereof,** which has not occurred to date.

In relation to the contamination directly caused to the premises formerly occupied by the Company and further to a lengthy legal process, a judicial settlement was reached between the lessor and the lessee.

We contend that the environmental authority improperly allowed BASF to devise an environmental remediation program for the premises occupied from 1973 to 1997, whereby as of this writing 11,800 tons of hazardous waste have been identified and removed from the site formerly occupied by BASF, and sent for disposal in Mina Nuevo León, as appears from the aforementioned file B-0002/775, much of this waste having been buried illegally.

It is obvious that some waste still remains in Ex Hacienda (Appendices 3, 5, 7, 8, 9, 10, 11, and 12), since Profepa opened a new file (SII-DGIFC-046/2004) calling for the Company to complete the remediation work agreed to in the judicial settlement. It should be noted that the vagueness of the assessment produced by BASF makes it so that even today not all the clandestinely buried hazardous waste on the lots adjacent to the leased lot has been located, nor have the corresponding preventive measures been taken.

- V. Total failure of enforcement, in view of the information contained in aforementioned file B-0002/775, in the Administrative Decision of 26 July 2002 by G. Rafael Coello García, **who presented himself as the Director General of Pollution Source Inspection** of the Office of the Deputy Attorney for Industrial Inspection of Profepa, yet I have not found published in the Official Gazette of the Federation (*Diario Oficial de la Federación*—DOF) any delegation of powers whereby he attained that position; therefore, I request that the Commission **corroborate this appointment**, since in said administrative act, Profepa acknowledges completion of a considerable part of the work, without **“this being in any way tantamount to release from any liability that may have been incurred by BASF Mexicana, S.A. de C.V.” (Appendix 13)**, since said Administrative Decision may be considered null and void as of right.
- VI. Failure to effectively enforce the law and total failure of enforcement, as attested by the administrative decision of 1 July 1998 in file B-0002/0750, since on the one hand, an inspection visit took place on 23 June 1998 **and a reliable account of the findings was produced (Appendix 4)**; it included a description of waste filtering into the subsoil and improper disposal of contaminated demolition debris in the form of landfill and/or grading of various lots and streets, yet the environmental authority did not order and execute urgent enforcement measures to prevent migration of the contamination and consequent harm to health and the environment, nor did it sanction the violator **“since it is evident from a perusal of the administrative decision that even where the authority notes the urgent enforcement measures, they were not, I reiterate, taken, and the violator BASF Mexicana, S.A. de C.V. has not to date been sanctioned, and so the facts described remain unpunished.”**
- VII. Failure to effectively enforce the law, as appears from the administrative decision of 20 July 2000 in file B-0002/775 (**Appendix 6**) in that, **more than two years after** the decision mentioned in the preceding paragraph of this Submission, **nothing had been done** by the competent authority, notwithstanding the evidence contained in the aforementioned decision of 1 July 1998.

Irregularly, in this administrative decision, Profepa received a proposal for restoration of the affected site from the Company, where in my judgment the environmental authority should itself have itemized the required measures and the timeline for taking them.

In addition to the fact that **no mention whatsoever is made of the measures to be taken on the lots of residents and on other sites where the BASF improperly disposed of hazardous waste from the demolition of its facility**, it is also to be noted that the environmental authority **is failing to address the points of agreement of the federal and state houses of representatives (cámaras de diputados) (Appendices 24–25).**

- VIII. Total failure of enforcement in that for reasons I do not profess to understand, Dr. Gerardo Anselmo Alvarado Salinas initiated a new administrative proceeding under number SII-SGIFC-023/2004 for the completion of the required work by the Company that was still pending and on 5 August 2004, issued an administrative decision (**Appendix 17**) comprising plans or sketches submitted by the Company, and presumably reviewed and approved by Profepa, in which **BASF deliberately failed to identify a clandestine drainage**, thus violating Articles 414–416, 420 quater, and 421 of the Federal Criminal Code (*Código Penal Federal*—CPF); **which approval was confirmed by Lic. Dorantes of Profepa, as appears in the notarized affidavit and on**

page 5 of 8 of the administrative act, both dated 9 May 2005 (Appendices 16 and 18), where he states that the plans were reviewed and approved by Profepa, yet Alvarado Salinas argues in his sixth preamble clause as follows: “Considering the change of legal status of the premises...,” whereas the legal status of the premises in question never changed (that part was not leased).

Additionally, the failure to effectively enforce the law can be corroborated by the fact that point 6 of the sixth preamble clause of the administrative decision was not complied with, and said noncompliance has not to date been punished, since no further testing was done on the premises apart from the testing done by the Universidad Autónoma Metropolitana (UAM) Azcapotzalco (**Appendix 5**), **since at no time is it recorded that personnel from any accredited laboratory entered the premises in question; see certified time sheets (Appendix 19).**

- IX. Total failure of enforcement on 11 May 2005, as appears in the notarized affidavit and the detailed official record of the same date (**Appendix 16**), which mention **the irregularities in the licenses obtained by BASF to carry out the activities described in aforementioned file DGIFC-023/2004** and the observations made by the owner’s representative of the irregularities and omissions observed, **emphasizing once again the existence of the clandestine drainage that was not indicated on the sketch or plan submitted by BASF and approved by Profepa, such that the latter consented to and tolerated the false information submitted by the Company (proof of the drainage, as issued by the municipality, is given in Appendix 20)**, the result being violations of the Federal Public Servants’ Responsibilities Act (*Ley Federal de Responsabilidades de los Servidores Públicos—LFRSP*).
- X. Total failure of enforcement in that the work which Profepa ordered BASF to perform in file SII-DGIFC-023/2004 was **suspended** by the municipality of Cuautla on 31 May 2005, **and the environmental authority has not to date required the Company to complete the work, nor has it assigned any responsibility to the Profepa public servants who tolerated or consented to the false information submitted by the Company** in regard to the performance of the work that was ordered in aforementioned administrative file SII-DGIFC-023/2004 (**Appendix 20**).
- XI. Total failure of enforcement in that various studies were performed on the leased premises and adjacent areas (**Appendices 7 and 9**), in addition to what was acknowledged by then Attorney Campillo with respect to the existence of contamination on lots adjacent to the leased one, file 016/02 of 17 January 2002 (**Appendix 21**), a situation that persists, as may be corroborated if the Commission arranges for the performance of tests on the adjacent lots and on the soil that was extracted in May 2005 by BASF and could not be removed from Ex Hacienda due to **suspension of the license** by the municipality of Cuautla, Morelos (**Appendix 22**), the municipality having ordered the suspension due to false statements made by BASF when applying for the license, especially worrisome in light of the statements of Irma Estela Dorantes of Profepa to the effect that the plans and licenses had been shown to Profepa, which, after reviewing them, had found them to its full satisfaction, **which was accepted by Lic. José Luis Cárdenas Rodríguez of Profepa, who refused to give the owner a copy of the record he had produced to this effect on 31 May 2005.**
- XII. Total failure of enforcement in the case of the health effects on some of my clients that were caused by environmental violations evidenced in the aforementioned environmental audit (**Appendix 3**), these being corroborated by the studies performed by UAM Azcapotzalco (**Appendix 5**), in addition to the clinical history of the former spouse of one of my clients (**Appendix 23**), it being obvious that these violations affected the health of the population and the ecological environment of the site.
- XIII. Failure to effectively enforce the law as attested by the penalty applied to BASF during the term of Attorney Ignacio Loyola Vera, of which the owner’s representative was notified in file PFFA/SJ/067/06 of 27 February 2006 (**Appendix 14**), signed by Deputy Attorney for Legal Affairs Mauricio Limón, which notice states that on 20 December 2005 a final resolution of the administrative proceeding in file B-0002/775 was issued, including a fine levied on the Company in the amount of \$1 872 000.00 (one million eight hundred seventy-

two thousand Mexican pesos), further stating **“in addition, BASF Mexicana, S.A. de C.V. was ordered to carry out the necessary corrective measures, reiterating the obligation to comply with the relevant part of the Environmental Restoration Program approved during the administrative proceeding, with said measures to be completed by the aforementioned Company within a fixed, specified time period”**; as may be observed, the environmental authority **limits itself here exclusively to penalizing acts relating to the Restoration Program**, which was devised by BASF itself, and of which the owner was notified, and the Company filed an appeal for judicial review **of whose outcome the owner has yet to be notified; it is also to be noted that over one year has elapsed since the failure to comply with the relevant part of the Environmental Restoration Program, suspended 31 May 2005 by the municipality, and they have yet to return to the site, evidencing the failure to effectively enforce the environmental law even in this instance where provisions for the protection of the public order and the interests of society are at stake.**

- XIV. Failure to effectively enforce the environmental law in terms of the indirect reference in file PFPA/SJ/067/06 to the decision signed by Ing. Coello (**Appendix 13**), **there being a presumption of nullity of said administrative act**, since there is no information on any delegation of powers being published in the DOE, in addition to what is stated in file EOO.PFPA.870 of 1 December 2003 **in which then Attorney Luege responds tardily to Roberto Abe’s letter of 26 May 2003 (Appendix 19)**
- XV. Failure to effectively enforce the law where, in the same document, Deputy Attorney Limón states **“As to the existence of a ‘clandestine drainage’ it must be noted that...,”** and continuing, **“this is outside the purview of this office.”** Deputy Attorney Limón attempts to exonerate Profepa from responsibility in the most bald-faced manner, claiming not to know that said clandestine drainage originated in the facility which, **under Profepa’s watch**, was the subject of environmental restoration work, and in addition is located on private property (**Appendix 14**).
- XVI. Failure to effectively enforce the law where the Deputy Attorney for Legal Affairs (*Subprocurador Jurídico*) states that Profepa does not have the power to order the audited party to sign the auditing plan of action, and in this regard **it is pertinent to mention that the owner did not request such action**; rather, what he argued was that, when the Company failed to sign the plan of action, the information obtained by the auditing area **should have been referred to the inspection area for the latter to proceed accordingly, since multiple and varied proofs of noncompliance existed**, and later during the putative restoration of the premises, 11,800 tons of hazardous waste was identified and sent for disposal in Mina Nuevo León; **it should be emphasized that more than three years passed before this took place**, which undoubtedly affected the health of the population and the environment in the area (aforementioned file B-0002/775); I must additionally reiterate the evidence of contamination found during the work initiated in May 2005, which is documented in **Appendices 11 and 12**, making plain that **contamination still exists on the site.**
- XVII. Failure to effectively enforce the environmental law in that the competent authority did not enforce the provisions of Articles 134, 152, and 170 of the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente—LGEEPA*) when it learned of the state of the Company’s facility further to information obtained from the voluntary environmental audit performed in 1996–1997, when the plant was operating as usual, the environmental authority should have ordered a set of urgent enforcement measures to prevent the hazardous waste from continuing to spread through the air or filtering through the subsoil, **contaminating the water table from 0 to 8 m depth**, the soil and subsoil contamination problems being very serious, as proven with the environmental restoration or remediation activities carried out by the Company from 2000 to 2002, **when more than 11,800 tons of hazardous waste was sent for disposal in Mina Nuevo León**, file B-0002/775, in large part made up of contaminated soil which still persists on the site, as corroborated by the notarized affidavits of 14 and 17 May 2005 (**Appendices 11 and 12**).

I base this submission on the following legal provisions:

Federal Criminal Code (CPF) Articles 414, 415 paragraph I to 416 paragraph I, 420 quater, and 421.

General Ecological Balance and Environmental Protection Act (LGEEPA) Articles 4, 5, 6, 134, 135, 136, 139, 140, 150, 151, 151 bis, 152, 152 bis, 160, 161, 162, 167, 167 bis, 167 bis 1, 167 bis 3, 167 bis 4, 168, 169, 170, 170 paragraph III, 170 bis, 171, 172 173, 174, 191, 192, and 193.

Regulation to the LGEEPA Articles 6, 8, 10, 12, and 23.

NOM-052-ECOL/93.

NOM-053-ECOL/93.

North American Agreement on Environmental Cooperation (NAAEC) Articles 14, 14(1), 14(2), 14(2)(c), 14(2)(d), and 14(3).

Comprehensive Waste Prevention and Management Act (*Ley para la Prevención y Gestión Integral de Residuos—LGPGIR*) Articles 68, 69, 75, 78, 101, 103, and 106.

Hazardous Waste Regulation (*Reglamento de Residuos Peligrosos*) Articles 8 paragraphs II, III, VI, VII and IX, 14, 15 paragraphs II and VII, and 17 paragraph II.

National Waters Act (*Ley de Aguas Nacionales*) Articles 29 paragraph VI and 119 paragraphs VI, VII, XI, XIV and XV.

Regulation to the National Waters Act Article 135 paragraphs IV, V, VI and VII.

In view of the foregoing and in accordance with Articles 14 and 15 of the North American Agreement on Environmental Cooperation, I hereby request that you accept my appearance in accordance with the terms set forth in this submission, proceeding according to law, my domicile being as stated for all relevant purposes.

Myredd Alexandra Mariscal Villaseñor

On my own behalf and as attorney for others

26 appendices

[Unofficial Translation]

**RE: SUBMISSION ON EFFECTIVE ENFORCEMENT OF
MEXICAN ENVIRONMENTAL LAW**

**COMMISSION FOR ENVIRONMENTAL COOPERATION
393, RUE ST. JACQUES OUEST, BUREAU 200
MONTREAL (QUEBEC) CANADA H2Y 1N9**

I, Roberto Abe Almada, acting on my own behalf and in my capacity as executor of the testamentary succession of my late father Roberto Abe Domínguez, as I attest with certified copy of said document attached as **Appendix 1** to this Submission, giving as domicile for purposes of receiving notice Avenida Teopanzolco no. 408-4° piso, Colonia Reforma, Cuernavaca 62450, Morelos, and authorizing for such purpose Atts. Roberto Jorge Abe Camil and Carlos Vasconcelos Beltrán, and e-mail address robertoabe23@hotmail.com, with due respect and on the basis of Articles 14 and 15 of the North American Agreement on Environmental Cooperation, submit as follows:

SUBMISSION

That Mexico be sanctioned for **failure by the competent environmental authorities to enforce and to effectively enforce** various provisions of environmental law in the following ways:

- One:** Failing to sanction the company BASF MEXICANA S.A. de C.V. at its premises located from 1973 to 1997 on a part of the property owned by the party I represent in Ex Hacienda de Nuestra Señora de la Concepción “El Hospital” in the municipality of Cuautla, state of Morelos, for noncompliance with various environmental and waste laws and regulations.
- Two:** Failing to enforce the environmental law with which BASF did not comply at this facility, as is patently clear from a perusal of the executive summary of the Auditing Plan of Action that was done free of charge during 1996–97, **when BASF was still operating.**
- Three:** Failing to directly perform the technical studies and detailed testing necessary to identify and assess the magnitude and severity of the contamination caused by BASF while it was operating, for, as is evident from a perusal of the body of this submission; **the authority based the measures it took solely on the self-diagnosis and remediation plan proposed by the polluter, BASF, without itself making any direct effort to assess the situation.**
- Four:** Failing to order or take the control measures necessary to **prevent the continued spread of the contamination detected there.**
- Five:** Failing to take timely measures for proper remediation of the site and allowing the contamination there to continue to cause harm to health, the environment, and the property of the party I represent. It is relevant to emphasize that during a process of environmental remediation of the premises then occupied by BASF, agreed upon in a judicial settlement, **more than 11,800 tons of contaminated materials and soils were removed from the rented property, but the site allegedly now remediated continues to exhibit high levels of heavy metal contamination.**

- Six:** Failing to act accordingly despite the results of tests of several samples taken by Profepa on the rest of the property of the party I represent, which was not rented to BASF, which proved the presence of lead, chromium, cadmium, and molybdenum above the levels allowed by the standards, **even though then Federal Attorney (Procurador) Campillo (Appendix 7) acknowledged the existence of high concentrations of heavy metals at various places on the property.**
- Seven:** Having ignored technical information produced by experts Roberto Flores Ortega and Manuel Murad Robles (Appendix 8) **proving the existence of contamination** in different parts of Ex Hacienda not rented to BASF, **of which Profepa was notified** (Appendix 16) **without that authority ordering any remediation measures whatsoever nor any measures to prevent the dispersion of contaminants through the subsoil.**
- Eight:** Having ignored technical information produced by experts Roberto Flores Ortega and Manuel Murad Robles (Appendix 9) **attesting to the persistence of contamination in the 5300 m² area that was presumably free of contaminants, as asserted by Profepa** (Appendix 6), which information was submitted to the competent authority as attested in Appendix 18, about which the authority has neither accepted its existence nor substantiated its nonexistence and, as a result, has ordered no remediation measures whatsoever, nor any measures to prevent the dispersion of contaminants through the subsoil.

BACKGROUND:

- a) Ex Hacienda de Nuestra Señora de la Concepción “El Hospital,” located in the municipality of Cuautla, Morelos is a lot measuring approximately 43,000 m², originally occupied by a sugar mill, and 2000 m² of which was rented to BASF MEXICANA. After several years, the company rented additional space, bringing the total occupied by its facility to approximately 5300 m².
- b) Starting in 1973, BASF and my late father signed consecutive leases with five-year terms. This occurred until 1993. Then, in 1995, he received from BASF a notice of its wish to terminate the lease early, which did take place, on 31 August 1997.
- c) BASF’s dismantlement of its facilities was not complete on the date indicated in the previous paragraph. Therefore, on 3 September 1997, the party I represent took possession of the premises, as attested by the information contained in Appendix 2 of this Submission, which contains photos of the state of disorder and contamination in which BASF left the premises. This is further corroborated by the administrative agreement of 1 July 1998 (Appendix 4) and files Profepa B-0002/0750 and Profepa B-0002/775.
- d) In 1996, after having notified my late father of its wish to terminate the lease early but before actual termination, BASF (**still fully operating**), agreed to a free and voluntary environmental audit. Profepa, as part of a promotional campaign for this self-regulatory mechanism, had offered BASF federal or international funds for that purpose. The auditor retained was TOPOGRAFIA ESTUDIOS Y CONSTRUCCION S.A. de C.V., and the supervisor was OSO INGENIERIA S.A. de C.V. The executive summary of the Auditing Plan of Action is included in this Submission as Appendix 3.
- e) It should be emphasized that the company, cognizant of the massive irregularities detected by the Profepa auditors in that audit, **opted to abort the process and not sign an agreement to take the corrective measures proposed.** Profepa, having taken cognizance of the information obtained through the environmental audit, was then obligated to:

1. Order and implement **urgent measures to resolve the environmental problems resulting from BASF's noncompliance and to prevent the spread of environmental damage, which it did not do.**
 2. Penalize the violator for the irregularities identified in that process. I must state to the CEC that as of today, no sanction whatsoever has ever been applied to BASF MEXICANA S.A. DE C.V further to the events.
- f) In response to the initial public complaints filed in 1998 by Roberto Abe Domínguez and several other residents, as may be corroborated from Profepa files B-0002/0750 and B-0002/775, the competent authority took various measures (Appendices 4 and 5) in which it acknowledged multiple violations of the applicable environmental law but in which, for reasons I do not understand, **it did not hold BASF to be a polluter and therefore did not penalize it, a situation that has persisted to this day.**
- g) As from 3 September 1997, various remedies – civil, penal, and administrative – were pursued, leading to a judicial settlement in which my late father agreed to Profepa's supervising the environmental remediation of the rented premises, which presumably occurred from 2000 to 2002 (Appendix 6, administrative agreement, Ing. Rafael Coello 26/07/02).
- h) As from the settlement, we were barred from the 5300 m² lot that BASF had occupied. Therefore, we were unable to ascertain or verify whether cleanup of that area was complete. However, we did observe that the contamination had gone beyond the areas covered by the settlement, so we notified the authority and pursued new civil and administrative remedies. **Throughout, the authorities' inaction has been the common denominator, yet the authority expressly acknowledged the existence of contamination on the rest of the property in the form of a document from then Federal Attorney for Environmental Protection José Campillo García** (Appendix 7). Added to this, the authority was aware of other contaminated sites in El Hospital arising from inadequate disposal of hazardous waste and demolition debris, which still persists in the locality.
- i) As part of the civil proceedings brought, expert testimony in the field of environmental and soil engineering as well as geophysics was presented. These documents, signed by Dr. Roberto Flores Ortega and chemical engineer Manuel Murad Robles, are attached as Appendix 8. Profepa ignored them.
- j) In addition to the expert testimony mentioned in the preceding paragraph, I attach copies of studies conducted in the last three years by Dr. Jorge Rodríguez and several students at UAM Azcapotzalco as part of undergraduate and master's degree programs under the supervision of Dr. Rodríguez (Appendix 10), which conclude that the contamination has gone beyond the industrial zone that BASF occupied, showing that:
1. **The environmental authorities did not foresee that the contamination caused by BASF could extend to the rest of the property and neighboring lots.**
 2. **The environmental analysis presented by BASF and approved without verification by Profepa was incorrect.**
 3. **The authority should have conducted its own testing and order preventive measures to keep the contamination from spreading.**

- k) As attested by administrative proceeding SII-SGIFC-0023/2004, almost two years after the aforementioned administrative act by Ing. Rafael Coello (Appendix 6), it was ordered that some of the work presumably comprised by the aforementioned judicial settlement be completed. Specifically, Dr. Gerardo Anselmo Alvarado Salinas of Profepa indicated the measures BASF was required to take on the lot owned by the party I represent, a chronology of which is presented in Appendices 11 to 14 of this submission. Of note, BASF never complied with the procedures ordered by Profepa. In most cases, this behavior was not penalized. BASF was only partially penalized by Profepa, as is evident from the document by Dr. Mauricio Limón of 27 February 2006 (Appendix 21) in which Attorney Loyola Vera sanctions several irregularities and instances of noncompliance by BASF in regard to the taking of measures arising from the environmental restoration plan. **No penalty whatsoever was applied for all the violations revealed by the executive summary of the environmental Auditing Plan of Action in 1997, the violations identified by Artemio Roque in 1998 and 2000 (Appendices 4 and 5) and those committed by BASF in May 2005 (Appendices 11–14) which, I emphasize, were suspended on 31 May 2005 further to an order by the municipality of Cuautla, since BASF violated the license issued by the municipality.**
- l) **I respectfully reiterate that the information contained in the plans presented by BASF to Alvarado Salinas is incorrect in its reference to the drains that have to be removed from the lot owned by the party I represent, bordering on the one rented by BASF, in that it intentionally omits mention of two industrial drains, the first leading out of the former BASF premises toward the village, and a drain 60 cm in diameter and over 4 m long leading from the rented area to the manhole that received discharges from the drain coming from the treatment plant that was supposedly operating on BASF premises. A few meters further along, this drain turns into the Espíritu Santo irrigation canal. This situation is mentioned in the notarized testimony taken on May 9, 11, 14, 17, and 31 (Appendices 11–14 of this submission). This omission and the failure to officially report the situation may constitute offenses against environmental management under Article 420 quater of the Criminal Code.**
- m) It must be emphasized that even though the undersigned reported the existence of the clandestine drain discussed in the preceding paragraph on multiple occasions, Profepa makes no mention of it anywhere. Indeed, Irma Estela Dorantes of Profepa states **that BASF submitted plans, programs of activities, and licenses to Profepa’s full satisfaction, which was false** (Appendices 11–14). It should be noted that the municipality specifically states that the plans submitted to it failed to indicate the clandestine drain, as attested by Appendix 22 this submission.
- n) I must point out that from the document by Mauricio Limón of 27/02/06 (Appendix 21) to the present, **there has been no resumption of the activities begun on 9 May 2005 and suspended due to violations of the municipal license obtained by BASF to carry out the work in question.** Much of the material is sitting in bags on the patio of Ex Hacienda, though it was supposed to have been sent to Mina Nuevo León on 31 May 2005 since it is contaminated (Appendix 15, certification of facts, 31 May 2005).

I transcribe below and incorporate into my submission the acts and omissions noted by Att. Myredd Mariscal in submission SEM-06-003, since I agree with her analysis of the facts presented therein.

ACT OR OMISSION INDICATIVE OF ABSENCE OF ENFORCEMENT OF, OR FAILURE TO EFFECTIVELY ENFORCE, MEXICAN ENVIRONMENTAL LAW

One: Absence of enforcement of the applicable environmental law, as attested by the executive summary of the Plan of Action of the audit carried out at BASF Mexicana, S.A. de C.V., at its facilities in Cuautla, Morelos (Appendix 3) while it was operating during the years 1996–97. The Profepa-accredited environmental auditor, Topografía, Estudios y Construcción, S.A. de C.V., supervised by Oso Ingeniería, S.A. de C.V., also Profepa-accredited, identified “deficiencies,” **as noncompliance with the following applicable legal provisions was then called:**

1. Air “ATM” 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, (pp. 13–17, Appendix 3)
2. Water “AGA” 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, (pp. 18–25, Appendix 3)
3. Hazardous waste “RSP” 001, 002, 003, 004, 005, 006, 007, 008, 009 (pp. 18–25, Appendix 3)
4. Waste “SOL” 001, 002 (pp. 29–30, Appendix 3)
5. Soil and subsoil “SYS” 001, 002 (pp. 3 and 31, Appendix 3)

Violations of various laws and regulations are noted under each of the deficiencies observed by the auditor and the supervisor. **I emphasize that to the date of this submission, the Company has not been penalized for any of these violations.**

Two. Absence of enforcement, since the environmental audit is a self-regulation tool originating in Mexico as a consequence of the North American Free Trade Agreement (NAFTA). Initially, the Mexican federal government, as a means of promoting this self-regulation tool, paid for a series of audits with its own funds and with international funding. Indeed, this is what occurred in the case at hand: **the audit of the company in 1996–97 was done at no cost to the company.** *This was a violation of the applicable environmental law and elementary principles of ethics,* since in the first place, **BASF should not have accepted this free work, for in 1995 it had given notice to the lessor of its premises in Cuautla of its wish to terminate its lease early, announcing that it would vacate the premises on 31 August 1997.** In fact, it was **evicted** from the property by the owner on 3 September 1997, as appears in Profepa files B-0002/0750 and B-0002/775.

Three. Absence of enforcement, since when BASF refused to sign the Auditing Plan of Action, whose executive summary is attached to this submission (Appendix 3), the Office of the Deputy Attorney for Environmental Auditing (*Subprocuraduría de Auditoría Ambiental*) should have referred the information generated by the auditor to the Office of the Deputy Attorney for Inspection (*Subprocuraduría de Verificación*), **which should have immediately sanctioned the violator. To date, this has not occurred.**

Four. Absence of enforcement, in that the environmental authority should, acting on its own behalf or by the National Institute of Ecology (*Instituto Nacional de Ecología—INE*), have conducted studies to assess the magnitude and severity of the environmental damage and health harms caused by the site to neighboring lots and residents, **and should have taken the measures necessary to prevent the spread of the contamination and to reduce its adverse environmental impacts.** To date, this has not occurred.

In relation to the contamination directly caused on the lot the company occupied, and after a long legal process, a judicial settlement was reached between the lessor and the lessee.

In my judgment, the environmental authority improperly allowed BASF to devise an environmental remediation plan for the premises it occupied from 1973 to 1997. This activity has made it possible to identify and remove 11,800 tons of hazardous waste from the site formerly occupied by BASF, which the company sent for containment at Mina Nuevo León, as attested by aforementioned file B-0002/775. Much of this waste was irregularly buried.

It is obvious that there is still waste to be found at Ex Hacienda, as attested by Appendices 3, 5, 7, 8, 9, 10, 11, and 12. Profepa opened a new file (SII-DGIFC-023/2004) for the company to complete the remediation work agreed to in the judicial settlement. The vagueness of the assessment conducted by BASF meant that even today, **not all the sites where hazardous waste was clandestinely disposed of on lots in the vicinity of the lessee have been found, nor were the corresponding prevention measures taken.**

Five. Absence of enforcement in view of the information contained in aforementioned file B-0002/775, in the administrative agreement issued on 26 July 2002 by G. Rafael Coello García, **who presented himself as the director of the Pollution Source Inspection Branch (*Dirección General de Inspección de Fuentes de Contaminación*)** of the Office of the Deputy Attorney for Industrial Inspection of Profepa. I have found no evidence of publication in the DOF of the administrative act appointing him as the head of that branch. Therefore, I request that the CEC **corroborate that appointment**, since in the administrative act in question, Profepa acknowledges completion of a large part of the work without (I quote) **“this meaning in any way a release of BASF Mexicana, S.A. de C.V. from any liability that it may have”** (Appendix 6), and since the administrative act in question could be found to be null and void.

Six. Failure to effectively enforce the law and absence of enforcement. As attested by the administrative agreement of 1 July 1998 in file B-0002/0750, the two conditions invoked are met: on the one hand, an inspection visit was made on 23 June 1998 **and a faithful account of the findings was narrated** (Appendix 4). The report describes the waste infiltrated into the subsoil and the improper disposal of contaminated demolition debris used for filling and grading of various lots and streets. The environmental authority does not order urgent measures to prevent the migration of the contamination and ensuing harm to health and the environment, nor does it sanction the violator, **“since from a reading of the administrative act it is evident that even where the authority notes them, the urgent measures, I reiterate, were not taken, and the violator BASF Mexicana, S.A. de C.V. has not been penalized, enjoying impunity for the actions described.”**

Seven. Failure to effectively enforce the law, as is evident from the administrative agreement of 20 July 2000 in file B-0002/775 (Appendix 5), in which, **more than two years after** the agreement noted in the preceding point in this submission, **nothing had been done** by the competent authority, notwithstanding the evidence contained in the aforementioned agreement of 1 July 1998.

In this administrative agreement, Profepa irregularly received from the company a restoration proposal for the affected site, when in my view the environmental authority itself should have specified which activities were required and within what timeline.

Furthermore, **no mention whatever is made of measures required to be taken on the property of other residents and on other sites where BASF improperly disposed of hazardous waste from demolition of its facility.** In addition, the environmental authority is **failing to address the resolutions (*puntos de acuerdo*) by the federal and state legislatures** (Appendices 23 and 24).

Eight. Absence of enforcement. For reasons I fail to understand, Dr. Gerardo Anselmo Alvarado Salinas opened a new administrative proceeding in file SII-SGIFC-023/2004 for the company to complete the pending work. On 5 August 2004 he issued an administrative agreement (Appendix 17) containing plans or sketches submitted by the company and presumably reviewed and approved by Profepa. In these plans, **BASF intentionally omits mention of a clandestine drain on the site**, giving rise to offenses under Articles 414–16, 420 quater, and 421 of the Federal Criminal Code (*Código Penal Federal*—CPF). **This approval was upheld by official Dorantes of Profepa as attested by notarized document and on page 5 of 8 of the administrative act, both dated 9 May 2005 (Appendix 11), where the official states that the plans were reviewed and approved by Profepa, and moreover, Alvarado Salinas states in the sixth paragraph of his preamble, “In view of the change of legal status of the property,” yet the legal status of the property in question never changed (that part was not rented).**

Further corroboration of the failure to effectively enforce the law is evident in the failure to penalize noncompliance with the sixth point of the sixth paragraph of the preamble to the aforementioned administrative agreement, since no tests were done on the property other than those done by the Universidad Autónoma Metropolitana (UAM) Azcapotzalco (Appendix 10), **as attested by the fact that at no time was the entrance onto the property of personnel from any accredited laboratory recorded** (certified log sheets, Appendix 19).

- Nine.** Absence of enforcement on 11 May 2005 as attested by the notarized document and the detailed report of the same date (Appendix 12), where mention is made of **irregularities in the licenses obtained by BASF to carry out the activities described in aforementioned file DGIFC-023/2004** and reports by the owner's representative of the irregularities and omissions observed. **I emphatically reiterate the existence of the clandestine drain that was not indicated on the sketch or plan submitted by BASF and approved by Profepa. Thus, the latter is consenting to and tolerating the false information submitted by the company (Appendix 20 contains proof of the existence of the drain issued by the municipality)** and hence violating the Federal Public Servants Responsibilities Act (*Ley Federal de Responsabilidades de los Servidores Públicos*—LFRSP).
- Ten.** Absence of enforcement. The work that Profepa ordered BASF to carry out in file SII-DGIFC-023/2004 was suspended by the municipality of Cuautla on 31 May 2005 and, to date, **the environmental authority has not compelled the company to conclude the work, nor has any responsibility whatsoever been laid at the door of the Profepa public servants who tolerated or consented to the false information submitted by the company** for the performance of the work ordered in aforementioned administrative file SII-DGIFC-023/2004 (Appendix 15).
- Eleven.** Absence of enforcement. Several studies were conducted on the rented premises and environs (Appendices 8 and 9), as was acknowledged by then Federal Attorney Campillo in regard to the existence of contamination on lots nearby the one rented (file 016/02 of 17 January 2002, Appendix 7). This situation persists, as may be corroborated by the CEC if it conducts or arranges for tests on neighboring lots and in soil extracted in May 2005 by BASF that could not be removed from Ex Hacienda due to **suspension of the license** by the municipality of Cuautla, Morelos (Appendix 15). I stress that **the suspension in question was ordered by the municipality due to false statements in the license applications originally filed by BASF**. These are especially troubling in light of the statements by Irma Estela Dorantes of Profepa, to the effect that the plans and licenses were shown to Profepa, reviewed by it, and fully approved by it. **This was acknowledged by JOSÉ LUIS CÁRDENAS RODRIGUEZ of Profepa, who refused to give the owner a copy of the official document produced by him to that effect on 31 May 2005.**
- Twelve.** Absence of enforcement in view of the health impacts experienced by some of my clients that were caused by violations of environmental law evidenced in the aforementioned environmental audit (Appendix 3). This is corroborated by the research done by UAM Azcapotzalco (Appendix 10). Add to this the clinical history of the man who was the husband of one of the residents (Appendix 22), and it is obvious that the health of the residents and the ecological environment at the site are affected.
- Thirteen.** Failure to effectively enforce the law as attested by the penalty imposed on BASF during the intervention of Attorney Ignacio Loyola Vera, which was communicated to the owner's representative in file PFFPA/SJ/067/06 of 27 February 2006 (Appendix 21), signed by Deputy Attorney for Judicial Affairs (*Subprocurador Jurídico*) Mauricio Limón. The document states that on 20 December 2005, **a final resolution of the administrative proceeding in file B-0002/775 was issued, in which the company was fined \$1 872 000.00 pesos**. The text reads, **"thus BASF Mexicana, S.A. de C.V. was ordered to take the necessary corrective measures, and it was reiterated that the company was obligated to comply with the relevant parts of the environmental restoration plan authorized during the administrative proceeding, and that compliance with these measures had to take place by a set deadline."** As is clear, the environmental authority **limited itself to sanctioning aspects related to the restoration program**, which BASF itself drew up, and the owner was notified thereof. The company filed an administrative appeal (*recurso de revisión*) against this administrative act, **the result of which has not yet been communicated to the owner. Furthermore, it should be mentioned that after the noncompliance with the relevant parts of the environmental restoration plan suspended by the municipality on 31 May 2005, more than a year and a half elapsed and they did not return to the site. This evidences the failure to effectively enforce the environmental law, even insofar as the provisions in question are for public order and the societal interest.**

- Fourteen.** Failure to effectively enforce the environmental law by virtue of an indirect reference in file PFFA/SJ/067/06 to the agreement signed by Ing. Coello (Appendix 6), **when there is a presumption of nullity of said administrative act**, since there is no record of an order of appointment published in the DOF, as well as the text of file EOO.PFFA.870 of 1 December 2003 **in which then Attorney Luege responded in delayed fashion to the letter by Roberto Abe of 26 May 2003 (file B-0002/775).**
- Fifteen.** Failure to effectively enforce the law when in the same document, Deputy Attorney Limón states, **“As to the existence of a ‘clandestine’ drain, it should be pointed out...”** and he continues, **“it is not within the purview of this office.”** Deputy Attorney Limón seeks to discharge Profepa from responsibility in the simplest way, for he claims not to know that the clandestine drain in question originates on premises where environmental restoration work took place **under the supervision of Profepa**, and furthermore they are on private property (Appendix 21).
- Sixteen.** Failure to effectively enforce the law when the Deputy Attorney for Judicial Affairs states that Profepa does not have the power to compel the audited party to sign the auditing plan of action. **It is relevant to mention that my client never requested this;** what he argued is that when the company failed to sign the plan of action, **the matter should have been referred to the inspection area for the latter to proceed accordingly, since there is much and varied evidence of noncompliance.** Later, during the supposed restoration of the premises, 11,800 tons of hazardous waste were identified and sent for containment in Mina Nuevo León, **but I must emphasize that this took three years to happen**, which undoubtedly affected the health of local residents and the environment (aforementioned file B-0002/775). Additionally, I must reiterate the evidence of contamination found during the work initiated in May 2005, which is documented in Appendices 10 to 14. They make plain **the continued existence of contamination at the site.**
- Seventeen.** Failure to effectively enforce the environmental law in that the competent authority did not enforce Articles 134, 152, and 170 of the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente—LGEEPA*) when it learned of the state of the company’s premises further to the information obtained from the voluntary environmental audit performed in 1996–97, when the company was operating normally. The environmental authority should have ordered a series of urgent measures to prevent the hazardous waste from continuing to spread into the air or infiltrate into the subsoil, **contaminating the water table to a depth of 8 m.** The soil and subsoil contamination problems are very serious, as was confirmed with the environmental restoration or remediation work carried out by the company from 2000 to 2002, **when more than 11,800 tons of hazardous waste was sent for containment in Mina Nuevo León, file B-0002/775.** The bulk of it was composed of contaminated soils, which still persist, as may be observed in the notarized documents of 14 and 17 May 2005 (Appendices 13 and 14).

I BASE MY SUBMISSION ON THE FOLLOWING PROVISIONS:

CPF Articles 414, 415 paragraph I, to 416 paragraph I, 420 quater, and 421.

LGEEPA Articles 4, 5, 6, 134, 135, 136, 139, 140, 150, 151, 151 bis, 152, 152 bis, 160, 161, 162, 167, 167 bis, 167 bis 1, 167 bis 3, 167 bis 4, 168, 169, 170, 170 paragraph III, 170 bis, 171, 172 173, 174, 191, 192, and 193.

Articles 6, 8, 10, 12, and 23 of the Regulation to the LGEEPA Respecting Hazardous Waste.

NOM-052-ECOL/93.

NOM-053-ECOL/93.

Articles 14, 14(1), 14(2), 14(2)(c), 14(2)(d), and 14(3) of the North American Agreement on Environmental Cooperation.

Articles 68, 69, 75, 78, 101, 103, and 106 of the Waste Prevention and Integrated Management Act (*Ley para la Prevención y Gestión Integral de Residuos*).

Articles 8 paragraphs II, III, VI, VII and IX, 14, 15 paragraphs II and VII, and 17 paragraph II of the Hazardous Waste Regulation (*Reglamento de Residuos Peligrosos*).

Articles 29 paragraph VI and 119 paragraphs VI, VII, XI, XIV and XV of the National Waters Act (*Ley de Aguas Nacionales*).

Article 135 paragraphs IV, V, VI, and VII of the Regulation to the National Waters Act.

IN VIEW OF THE FOREGOING AND ON THE BASIS OF ARTICLES 14 AND 15 OF THE NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION,

I HEREBY REQUEST:

THAT MY SUBMISSION BE CONSIDERED DULY FILED, AND THAT IT BE PROCESSED ACCORDING TO LAW, TAKING NOTE OF MY DOMICILE FOR THE RELEVANT PURPOSES

ROBERTO ABE ALMADA

On my own behalf and as executor

APPENDIX 3

Updated overall work plan for the preparation of the factual record

Secretariat of the Commission for Environmental Cooperation

Overall Plan to Develop a Factual Record

Submitters (SEM-06-003): Myredd Alexandra Mariscal Villaseñor
Justina Domínguez Palafox
Félix Segundo Nicolás
Karina Guadalupe Morgado Hernández
Santos Bonifacio Contreras Carrasco
Florentino Rodríguez Viaira
Valente Guzmán Acosta
María Guadalupe Cruz Ríos
Cruz Ríos Cortés
Silvestre García Alarcón
Represented by: Myredd Alexandra Mariscal Villaseñor

Submitter (SEM-06-004): Roberto Abe Almada

Party: United Mexican States

Date of this plan: 9 August 2012

Submission I.D.: SEM-06-003 (*Ex Hacienda El Hospital II*)
SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated)

Background

Articles 14 and 15 of the North American Agreement on Environmental Cooperation (the “NAAEC” or the “Agreement”) provide for a process allowing any person or nongovernmental organization to file a submission asserting that a Party to the NAAEC is failing to effectively enforce its environmental law. The Secretariat of the Commission for Environmental Cooperation (the “Secretariat” of the “CEC”) initially considers submissions to determine whether they meet the criteria contained in NAAEC Article 14(1). When the Secretariat finds that a submission meets these criteria, it then determines, pursuant to the provisions of NAAEC Article 14(2), whether the submission merits a response from the concerned Party. In light of any response from the concerned Party, and in accordance with NAAEC, the Secretariat may notify the CEC Council (the “Council”) that the matter warrants the development of a factual record, providing its reasons for such recommendation in accordance with NAAEC Article 15(1). Where the Secretariat decides to the contrary, or where certain circumstances obtain, it then proceeds no further with the submission.¹

1. Full details regarding the various stages of the process as well as previous Secretariat determinations and factual records can be found on the CEC website at <http://www.cec.org/citizen/>.

On 17 July 2006, Myredd Alexandra Mariscal Villaseñor, on her own behalf and representing Justina Domínguez Palafox, Félix Segundo Nicolás, Karina Guadalupe Morgado Hernández, Santos Bonifacio Contreras Carrasco, Florentino Rodríguez Vaira, Valente Guzmán Acosta, María Guadalupe Cruz Ríos, Cruz Ríos Cortés, and Silvestre García Alarcón, filed submission SEM-06003 (*Ex Hacienda El Hospital II*).² On 22 September 2006, Roberto Abe Almada filed submission SEM-06-004 (*Ex Hacienda El Hospital III*) and endorsed the assertions of submission SEM-06-003.³ Both submissions were filed with the Secretariat in accordance with NAAEC Article 14(1).

In submissions SEM-06-003 and SEM-06-004 the persons listed in the preceding paragraph (the “Submitters”), assert that Mexico is failing to effectively enforce its environmental law with respect to the operation, shutdown, and decommissioning of a pigment production plant (the “Facility”) operated by BASF Mexicana, S.A. de C.V. (BASF), located in Ex Hacienda de Nuestra Señora de la Concepción El Hospital (“Ex Hacienda El Hospital”) in the municipality of Cuautla, state of Morelos.

On 30 August and 28 September 2006, the Secretariat determined that submissions SEM-06-003 and SEM-06-004, respectively, met the requirements of NAAEC Article 14(1) and found that, in light of the NAAEC Article 14(2) criteria, they warranted a response from Mexico.⁴ In accordance with paragraph 10.3 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “Guidelines”) in effect at the time, the Secretariat consolidated the two submission files.⁵

On 10 January 2007, Mexico filed its response with the Secretariat in accordance with NAAEC Article 14(3).⁶ In its response, Mexico states that Profepa followed up on the recommendations in an environmental audit of the facilities operated by BASF and that it processed citizen complaints filed in relation to the matter raised by the Submitters in a timely manner. Mexico’s response notes that restoration actions for the site were blocked by one of the Submitters.

On 12 May 2008, the Secretariat notified the Council that consolidated submissions SEM-06-003 and SEM-06-004 merited development of a factual record. After considering the submissions in light of Mexico’s response, the Secretariat concluded that the response left open central questions as to the effective enforcement of environmental law in relation to several of the Submitters’ assertions. The central open questions identified by the Secretariat relate to the following environmental laws: the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA) Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170; the General Waste Prevention and Integrated Management Act (*Ley General para la Prevención y Gestión Integral de Residuos*—LGPGIR) Articles 68, 69, 75, and 78; the Federal Criminal Code (*Código Penal Federal*—CPF) Article 421, as well as CPF Articles 415 paragraph I and 416 in force prior to 6 February 2002; the Regulation to the LGEEPA respecting Hazardous Waste (*Reglamento de la LGEEPA en materia de Residuos Peligrosos*—RRP) Articles 8 paragraph X, 10, and 12, and Mexican Official Standards (*Normas Oficiales Mexicanas*—NOM) NOM-052-SEMARNAT-1993⁷ and NOM-053-SEMARNAT-1993.⁸ These issues relate to the investigation and prosecution of environmental offenses, the alleged illegal disposal of waste during the operation of the Facility, as well as the control of contamination on other lots in the community where waste and materials resulting from the decommissioning were disposed.

2. SEM-06-003 (*Ex Hacienda El Hospital II*), Submission pursuant to Article 14(1) (17 July 2006).

3. SEM-06-004 (*Ex Hacienda El Hospital III*), Submission pursuant to Article 14(1) (22 September 2006).

4. SEM-06-003 (*Ex Hacienda El Hospital II*), Determination pursuant to Article 14(1) (2) (30 August 2006), and SEM-06-004 (*Ex Hacienda El Hospital III*), Determination pursuant to Article 14(1) (2) (28 September 2006).

5. SEM-06-004 (*Ex Hacienda El Hospital III*), Determination pursuant to Article 14(1) (2) (28 September 2006), p. 1.

6. SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) Response pursuant to Article 14(3) (10 January 2007).

7. This standard was originally issued as NOM-CRP-001-ECOL/93, which establishes the characterization of hazardous wastes, a listing of hazardous wastes, and their maximum acceptable levels of toxicity. Its title was later changed to NOM-052-ECOL-1993, and it is currently in effect under the title NOM-052-SEMARNAT-2005.

8. This standard was originally issued as NOM-CRP-002-ECOL/93, which establishes the procedure to examine the components of a hazardous waste in order to determine its toxicity levels. Its title was later changed to NOM-053-ECOL-1993, and it is currently in effect under the title NOM-053-SEMARNAT-1993.

On 15 June 2012, by means of Council Resolution 12-03, the Council unanimously decided to instruct the Secretariat to prepare a factual record in accordance with NAAEC Article 15(2) with regard to alleged failures by Mexico to effectively enforce its environmental law. The Council directed the Secretariat to provide the Parties with an overall plan for gathering relevant facts, as well as to keep the Council informed of any future changes or adjustments to such plan. In following the Secretariat sets out the overall plan of work for developing the draft factual record.

Overall Scope of the Fact Finding

As per Council Resolution 12-03, the Secretariat will develop a factual record in connection with the following:

- a) Facts surrounding Mexico's alleged failures to effectively enforce LGEEPA Article 170 in connection with the alleged illegal dumping of hazardous waste in the community of Ex Hacienda El Hospital, in the Municipality of Cuautla, State of Morelos, and the alleged crimes against the environment, during the operation, shutdown and decommissioning of the Facility operated by BASF;
- b) Facts surrounding alleged failures by Mexico to effectively enforce LGEEPA Articles 134, 135, paragraph III, 136, 139, 150, 151, 152 *bis*, and 169; CPF Article 421, as well as Articles 415 paragraph I, and 416 paragraph I, of the CPF in force before February 6, 2002; RRP Articles 8 paragraph X, 10 and 12; NOM-052-SEMARNAT-1993 and NOM-053-SEMARNAT-1993, regarding the alleged illegal dumping of hazardous waste in the Facility and the alleged illegal dumping of hazardous waste in the community of Ex Hacienda El Hospital, in the Municipality of Cuautla, State of Morelos, and the alleged crimes against the environment, during the operation, shutdown and decommissioning of the Facility operated by BASF.

Overall Plan

This estimate to develop a draft factual record is consistent with timeframes established in the Guidelines effective as of 11 July 2012.⁹

The overall plan is as follows:

- Through public notices or direct requests for information, the Secretariat will invite the Submitters; JPAC; community members; the general public; and municipal, state/provincial and federal government officials to submit information relevant to the scope of fact-finding outlined above. The Secretariat will explain the scope of the fact finding, providing sufficient information to enable interested nongovernmental organizations or persons, and/or the JPAC to provide relevant information to the Secretariat as per NAAEC Article 15(4) [**This will take place in August 2012**].
- The Secretariat will request information relevant to the factual record from federal, provincial and local government authorities of Mexico, as appropriate, and shall consider any information furnished by a Party as per NAAEC Articles 15(4) and 21(1)(a) [**This will take place in August 2012 through February 2013**].
- The Secretariat will gather relevant technical, scientific or other information that is publicly available, including from existing databases, public files, information centers, libraries, research centers and academic institutions as per NAAEC Article 15(4)(a) [**This will take place August-October 2012**].
- The Secretariat, as appropriate, will collect relevant technical, scientific or other information for the preparation of the factual record, from interested nongovernmental organizations or persons, the JPAC and/or independent experts as per NAAEC Article 15(4)(b) and (c) [**This will take place in September 2012**].
- The Secretariat, as appropriate, will develop, through independent experts, technical, scientific or other information relevant to the factual record as per NAAEC Article 15(4)(d) [**This will take place August-December 2012**].

9. The *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the "Guidelines") were recently revised by the NAAEC Parties. Consistent with new Guideline 19.5, the Secretariat aims to conclude preparation of the draft factual record within 180 working days from the date on which Council Resolution 12-03 was issued.

- In accordance with NAAEC Article 15(4), the Secretariat will prepare the draft factual record based on the information gathered and developed [**This will take place October 2012-March 2013**].
- The Secretariat will translate and finalize editing of the draft factual record into the other official languages of the CEC [**This will take place May-July 2013**]. During this period, the Secretariat will incorporate information that is being obtained currently through requests to Mexican authorities.
- The Secretariat will submit a draft factual record to Council, in accordance with NAAEC Article 15(5) [**This will take place in September-October 2013**].
- Any Party may provide comments on the accuracy of the draft within 45 days thereafter, in accordance with NAAEC Article 15(5) [**This will take place in November 2013**].
- As provided by Article 15(6), the Secretariat will incorporate, as appropriate, any such comments in the final factual record and submit it to Council [**This will take place in February 2014**].
- The Council may, by a two-thirds vote, make the final factual record publicly available, normally within 60 days following its submission, according to NAAEC Article 15(7) [**This will take place in May 2014**].

Additional Information

The submission, the Party's response, the Secretariat's determinations, the Council Resolution, and a summary of the foregoing are available in the Registry of Submissions on the CEC home page <www.cec.org>, via email at <sem@cec.org> or upon written request to the Secretariat at the following address:

Secretariat of the CEC
Submissions on Enforcement Matters Unit
393 St-Jacques St. West, Suite 200
Montreal, QC H2Y 1N9
Canada

APPENDIX 4

Request for information describing the scope of the information to be included in the factual record and giving examples of relevant information

Secretariat of the Commission for Environmental Cooperation

REQUEST FOR INFORMATION for preparation of a factual record concerning consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) August 2012

I. The factual record process

The Commission for Environmental Cooperation of North America (CEC) is an international organization created under the North American Agreement on Environmental Cooperation (NAAEC) by Canada, Mexico and the United States. The CEC operates through three organs: a Council, made up of the highest-level environmental official in each member country; a Joint Public Advisory Committee (JPAC), composed of five citizens from each country; and a Secretariat located in Montreal.

Articles 14 and 15 of the North American Agreement on Environmental Cooperation (the “NAAEC” or the “Agreement”) provide for a process allowing any person or nongovernmental organization to file a submission asserting that a Party to the NAAEC is failing to effectively enforce its environmental law. The Secretariat of the Commission for Environmental Cooperation (the “Secretariat” of the “CEC”) initially considers submissions to determine whether they meet the criteria contained in NAAEC Article 14(1). When the Secretariat finds that a submission meets these criteria, it then determines, pursuant to the provisions of NAAEC Article 14(2), whether the submission merits a response from the concerned Party. In light of any response from the concerned Party, and in accordance with NAAEC, the Secretariat may notify the CEC Council (the “Council”) that the matter warrants the development of a factual record, providing its reasons for such recommendation in accordance with NAAEC Article 15(1). Where the Secretariat decides to the contrary, or where certain circumstances obtain, it then proceeds no further with the submission.¹

The introduction to the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “Guidelines”), effective as of 11 July 2012, gives guidance as to the contents of a factual record:

The purpose of a factual record is to provide an objective presentation of the facts relevant to the assertion set forth in a submission and to allow the readers to draw their own conclusions regarding a Party’s environmental law enforcement. Although a factual record is not to contain conclusions or recommendations, it is expected to generally outline the history of the environmental enforcement issue raised in the submission, the relevant legal obligations of the Party, and the actions of the Party in fulfilling those obligations; as such, it is another valuable outcome of this information sharing-process [...]²

1. Full details regarding the various stages of the process as well as previous Secretariat determinations and factual records can be found on the CEC website at <<http://www.cec.org/citizen/>>.
2. *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation*, (the “Guidelines”) p. 1.

Pursuant to NAAEC Article 15(4) and section 11.1 of the Guidelines, in preparing factual records, the Secretariat will consider any relevant technical, scientific or other information that is publicly available; submitted by the Joint Public Advisory Committee (JPAC) or by interested non-governmental organizations or persons, or developed by the Secretariat or independent experts.³

In addition, pursuant to NAAEC Article 21(1)(a), on request of the Secretariat, each Party to the NAAEC shall:

promptly [make] available any information in its possession required for the preparation of a report or factual record, including compliance and enforcement data;...

On 15 July 2012, in Council Resolution 12-03, the Council, pursuant to NAAEC Article 15(2), unanimously instructed the Secretariat to prepare a factual record. The Secretariat is hereby requesting relevant information relating to the matters to be addressed in the factual record. The following sections provide background on the submission and describe the type of information requested.

II. Consolidated submissions SEM-06-003 (Ex Hacienda El Hospital II) and SEM-06-004 (Ex Hacienda El Hospital III) and the Council Resolution 12-03 dated 15 de June 2012.

On 17 July 2006, Myredd Alexandra Mariscal Villaseñor, on her own behalf and representing Justina Domínguez Palafox, Félix Segundo Nicolás, Karina Guadalupe Morgado Hernández, Santos Bonifacio Contreras Carrasco, Florentino Rodríguez Viara, Valente Guzmán Acosta, María Guadalupe Cruz Ríos, Cruz Ríos Cortés, and Silvestre García Alarcón, filed submission SEM-06003 (*Ex Hacienda El Hospital II*).⁴ On 22 September 2006, Roberto Abe Almada filed submission SEM-06-004 (*Ex Hacienda El Hospital III*) and endorsed the assertions of submission SEM-06-003.⁵ Both submissions were filed with the Secretariat in accordance with NAAEC Article 14(1).

In consolidated submissions SEM-06-003 and SEM-06-004 the persons listed in the preceding paragraph (the “Submitters”), assert that Mexico is failing to effectively enforce its environmental law with respect to the operation, shutdown, and decommissioning of a pigment production plant (the “Facility”) operated by BASF Mexicana, S.A. de C.V. (BASF), located in Ex Hacienda de Nuestra Señora de la Concepción El Hospital (“Ex Hacienda El Hospital”) in the municipality of Cuautla, state of Morelos.

On 30 August and 28 September 2006, the Secretariat determined that submissions SEM-06-003 and SEM-06-004, respectively, met the requirements of NAAEC Article 14(1) and found that, in light of the NAAEC Article 14(2) criteria, they warranted a response from Mexico.⁶ In accordance with paragraph 10.3 of the Guidelines in effect at the time, the Secretariat consolidated the two submission files.⁷

On 10 January 2007, Mexico filed its response with the Secretariat in accordance with NAAEC Article 14(3).⁸ In its response, Mexico states that Profepa followed up on the recommendations in an environmental audit of the facilities operated by BASF and that it processed citizen complaints filed in relation to the matter raised by the Submitters in a timely manner. Mexico’s response notes that restoration actions for the site were blocked by one of the Submitters.

3. Guideline 11.1.

4. SEM-06-003 (*Ex Hacienda El Hospital II*), Submission pursuant to Article 14(1) (17 July 2006).

5. SEM-06-004 (*Ex Hacienda El Hospital III*), Submission pursuant to Article 14(1) (22 September 2006).

6. SEM-06-003 (*Ex Hacienda El Hospital II*), Determination pursuant to Article 14(1) (2) (30 August 2006), and SEM-06-004 (*Ex Hacienda El Hospital III*), Determination pursuant to Article 14(1) (2) (28 September 2006).

7. SEM-06-004 (*Ex Hacienda El Hospital III*), Determination pursuant to Article 14(1) (2) (28 September 2006), p. 1.

8. SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) Response pursuant to Article 14(3) (10 January 2007).

On 12 May 2008, the Secretariat notified the Council that consolidated submissions SEM-06-003 and SEM-06-004 merited development of a factual record. After considering the submissions in light of Mexico's response, the Secretariat concluded that the response left open central questions as to the effective enforcement of environmental law in relation to several of the Submitters' assertions. The central open questions identified by the Secretariat relate to the following environmental laws: the General Ecological Balance and Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*—LGEEPA) Articles 134, 135 paragraph III, 136, 139, 150, 151, 152 *bis*, 169, and 170; the General Waste Prevention and Integrated Management Act (*Ley General para la Prevención y Gestión Integral de Residuos*—LGPGIR) Articles 68, 69, 75, and 78; the Federal Criminal Code (*Código Penal Federal*—CPF) Article 421, as well as CPF Articles 415 paragraph I and 416 in force prior to 6 February 2002; the Regulation to the LGEEPA respecting Hazardous Waste (*Reglamento de la LGEEPA en materia de Residuos Peligrosos*—RRP Articles 8 paragraph X, 10, and 12, and Mexican Official Standards (*Normas Oficiales Mexicanas*—NOM) NOM-052-SEMARNAT-1993⁹ and NOM-053-SEMARNAT-1993.¹⁰

On 15 June 2012, by means of Council Resolution 12-03, the Council unanimously decided to instruct the Secretariat to prepare a factual record in accordance with NAAEC Article 15(2) with regard to alleged failures by Mexico to effectively enforce its environmental law. The Council directed the Secretariat to provide the Parties with an overall plan for gathering relevant facts, as well as to keep the Council informed of any future changes or adjustments to such plan. In following the Secretariat sets out the overall plan of work for developing the draft factual record.

III. Request for Information

In view of the instructions received via Council Resolution 12-03, the Secretariat takes note that the factual record is not to include information about the effective enforcement of the LGPGIR.

In accordance with Council Resolution 12-03, on 9 August 2012 the Secretariat issued a work plan delimiting the scope of the factual record and envisioning the gathering of information pursuant to NAAEC Article 15(4). According to the work plan, the information gathering process is to focus on the following aspects:

- a) LGEEPA Article 170 in connection with the alleged illegal dumping of hazardous waste in the community of Ex Hacienda El Hospital, in the Municipality of Cuautla, State of Morelos, and the alleged crimes against the environment, during the operation, shutdown and decommissioning of the Facility operated by BASF.
- b) LGEEPA Articles 134, 135, paragraph III, 136, 139, 150, 151, 152 *bis*, and 169; CPF Article 421, as well as Articles 415 paragraph I, and 416 paragraph I, of the CPF in force before February 6, 2002; RRP Articles 8 paragraph X, 10 and 12; NOM-052-SEMARNAT-1993 and NOM-053-SEMARNAT-1993, regarding the alleged illegal dumping of hazardous waste in the Facility and the alleged illegal dumping of hazardous waste in the community of Ex Hacienda El Hospital, in the Municipality of Cuautla, State of Morelos, and the alleged crimes against the environment, during the operation, shutdown and decommissioning of the Facility operated by BASF.

IV. Examples of relevant information

The following are examples of technical, scientific, or other information that could be presented by members of the community and the public with respect to the case before the Secretariat of the CEC. To facilitate the management and compilation of this information, it is requested that this information be submitted in electronic form.

9. This standard was originally issued as NOM-CRP-001-ECOL/93, which establishes the characterization of hazardous wastes, a listing of hazardous wastes, and their maximum acceptable levels of toxicity. Its title was later changed to NOM-052-ECOL-1993, and it is currently in effect under the title NOM-052-SEMARNAT-2005.

10. This standard was originally issued as NOM-CRP-002-ECOL/93, which establishes the procedure to examine the components of a hazardous waste in order to determine its toxicity levels. Its title was later changed to NOM-053-ECOL-1993, and it is currently in effect under the title NOM-053-SEMARNAT-1993.

- 1. Information about the area in question, specifically:**
 - a. Maps (in high-quality electronic format with GIS, Autocad, or Acrobat compatible vectors) of the municipality of Cuautla, the locality of Ex Hacienda El Hospital, and the boundaries of the Facility.
 - b. Information about watersheds in which the municipality of Cuautla is located, with identification of the “Espíritu Santo” receiving body.
 - c. Urban development programs or plans for the municipality of Cuautla that were in force during the operational phase of the Facility, with identification of the activities that were planned for the locality of Ex Hacienda El Hospital.

- 2. Information about the identification of hazardous materials and wastes generated prior to the alleged delivery thereof to persons in the locality of Ex Hacienda El Hospital (it is suggested that information be presented about the final year of the operational phase of the Facility), including, for example:**
 - a. Quantity and type of hazardous waste generated, with reference to the determination arising from the hazardous waste classification procedures set out in NOM-052-SEMARNAT-1993.
 - b. Information about the extraction tests performed in order to determine the hazardousness of a waste as a function of its toxicity in the environment, pursuant to NOM-053-SEMARNAT-1993.

- 3. Information about the facts relating to the alleged disposal of hazardous waste inside the Facility, such as:**
 - a. Information about the date of cessation of operations and the beginning of the process of dismantling, cleaning, and shutting down the Facility.
 - b. Information about notices given to the competent environmental authority about spills, infiltrations, discharges, or dumping of hazardous waste occurred in the Facility, as well as the characteristics of such waste.
 - c. Log of plant shutdown activities describing measures taken in the Facility to identify the possible burial, disposal, infiltration, or spill of hazardous waste, as well as the fate thereof.
 - d. Activities, measures, and any other action by the federal environmental authority to reduce potential risks to the environment and public health arising from the possible burial of hazardous waste in the Facility.

- 4. Information about the facts relating to the alleged delivery of hazardous and non-hazardous materials and wastes from the Facility to persons in the locality of Ex Hacienda El Hospital, such as:**
 - a. Documentation of the type, quantity, and methodology used to determine the hazardousness, if any, and treatment, if any was necessary, of the materials and wastes delivered to persons in the locality of Ex Hacienda El Hospital; as well as about the legal arrangements under which such delivery was made.
 - b. Information substantiating the identity of persons to whom delivery was apparently made, including censuses, estimates, and other measures taken.
 - c. Mapping information, ideally in electronic format with usable vectors, about the location of lots in the locality of Ex Hacienda El Hospital that allegedly received materials and wastes from the Facility.
 - d. Any report produced in connection with the shipping of materials and wastes to third-party lots in the locality of Ex Hacienda El Hospital and, as applicable, contamination control measures planned and/or implemented for such lots.
 - e. Information about inspection and surveillance measures taken by the competent authorities to verify that the materials and wastes from the Facility that were stockpiled, dumped, or infiltrated in the locality of Ex Hacienda El Hospital met the conditions necessary to prevent or avoid soil contamination and health risks.

5. **Information about facts relating to the removal and final disposal of hazardous and non-hazardous materials and wastes from the locality of Ex Hacienda El Hospital and evaluation of the lots further to removal thereof, for example:**
 - a. Information about verification of removal and adequate final disposal of hazardous and non-hazardous materials and wastes from third-party lots in the locality of Ex Hacienda El Hospital, including any relevant plan produced, as well as statistical or census data.
 - b. Information about the implementation of studies and methodologies to assess soil, subsoil, and groundwater contamination from third-party lots subsequent to removal of materials and wastes allegedly originating from the Facility.
 - c. Information about corrective measures for the restoration and remediation of lots in the locality of Ex Hacienda El Hospital that BASF was ordered to comply with.
 - d. Activities, measures, plans and/or programs carried out by the competent authorities for prevention and control of soil contamination and the prevention of human health harms subsequent to the removal of materials and wastes originating from the Facility and found in the locality of Ex Hacienda El Hospital.

6. **Information about facts relating to liability arising from the alleged act of delivery, shipping, and illegal disposal of hazardous waste in the Facility and on lots in Ex Hacienda El Hospital, such as:**
 - a. Information about expert testimony or opinions that were added to investigations 58/98 and 6243/FEDA/98 as part of the investigation and prosecution of crimes under federal jurisdiction.
 - b. Information about the result of criminal investigations conducted by the office of the Attorney General of the Republic for the investigation of acts or omissions noted by the relevant environmental authority that could have caused or could cause harm to public health, natural resources, fauna, flora, or ecosystems.
 - c. Any investigation carried out by the competent authority and any penalties and/or safety measures ordered in relation to the alleged illegal disposal of hazardous waste from the Facility, and during alleged acts of sale, shipping, delivery, dumping, disposal, burial, or donation of hazardous and non-hazardous substances, materials, and wastes on or to lots and/or persons in the locality of Ex Hacienda El Hospital.

7. **Any other technical, scientific, or other information that could be relevant for the preparation of this factual record.**

V. Additional background information

The submission, Mexico's response, the Secretariat's determinations, the Council Resolution and other information are available in the Public Registry in the Submissions on Enforcement Matters section of the CEC website at <<http://www.cec.org/SEMregistry>>. These documents may also be requested from the Secretariat to the following address <sem@cec.org>.

VI. Where to send information?

Relevant information for the development of the factual record, may be sent to the Secretariat until **15 October 2012**, via email to the following address <sem@cec.org>

If the information is not available in electronic form, please send it to either of the following addresses:

Secretariat of the CEC
Submissions on Enforcement
Matters Unit (SEM Unit)
393, rue St-Jacques Ouest
bureau 200
Montreal QC H2Y 1N9
Canada
Tel. (514) 350-4300

CCA / Mexico Liaison Office
Atención: Unidad sobre Peticiones
Relativas a la Aplicación Efectiva de la
Legislación Ambiental
Progreso núm. 3
Viveros de Coyoacán
México, D.F. 04110
México
Tel. (5255) 5659-5021

Please refer to submission SEM-06-003 (*Ex Hacienda El Hospital II*) and/or SEM-06-004 (*Ex Hacienda El Hospital III*) in your correspondence.

APPENDIX 5

Request for information to the Mexican authorities

Letter to the Party requesting information for development of the factual record for consolidated submissions SEM-06-003 (Ex Hacienda El Hospital II) and SEM-06-004 (Ex Hacienda El Hospital III)

29 August 2012

Re: Development of the factual record for consolidated submissions SEM-06-003
(*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*)

The Secretariat hereby requests from Mexico relevant information to develop the factual record for consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*), in accordance NAAEC Articles 15(4) and 21(1)(a).

As you are aware, on 15 June 2012, the Council of the Commission for Environmental Cooperation of North America unanimously resolved to instruct the Secretariat to develop a factual record, in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the NAAEC (Guidelines)*, with respect to the assertions stated in the submission referred to above.

Under Article 21(1)(a) of the NAAEC, we hereby request the information described in the attached document. Also, pursuant to this provision, the Secretariat may request additional information, if it deems so necessary. Likewise, pursuant to NAAEC Article 15(4), the Secretariat shall consider information publicly available and provided by the Joint Public Advisory Committee (JPAC), submitters or other interested nongovernmental organizations or persons, as well as information developed by the Secretariat or independent experts.

Attached you will find the list of matters on which information is requested of Mexico for developing this factual record. Please respond to this request no later than 30 September 2012. If any clarification is needed, questions may be sent to the following electronic mail address, to the attention of Paolo Solano: psolano@cec.org.

Thank you in advance for your attention to this matter.

Sincerely,

Secretariat of the Commission for Environmental Protection

(*original signed*)
Executive Director

Attachment

cc: Canada Alternate Representative
US Interim Alternate Representative
Director, Submissions on Enforcement Matters Unit, CEC

APPENDIX 6

Request for information to submitters, JPAC and other NAAEC Parties

Form Letter to Submitters

29 August 2012

Re: Request for information relevant to the factual record for consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*)

Consistent with Council Resolution 12-03, the Secretariat of the Commission for Environmental Cooperation of North America (CEC) recently began the process of preparing a “factual record” regarding the assertion that Mexico is failing to effectively enforce its environmental laws with respect to the operation, shutdown, and decommissioning of a pigment production plant (the “Facility”) operated by BASF Mexicana, S.A. de C.V. (BASF), located in Ex Hacienda de Nuestra Señora de la Concepción El Hospital (“Ex Hacienda El Hospital”) in the municipality of Cuautla, state of Morelos.

I am writing to invite you to submit information relevant to the factual record. The attached Request for Information explains the citizen submissions and factual records process, gives background on the consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*), describes the scope of the information to be included in the factual record for this submission, and provides examples of information that might be relevant. We will accept information for possible consideration in connection with the factual record until 30 September 2012.

We appreciate your consideration of this request and look forward to any relevant information you are able to provide. Please feel free to contact the Secretariat if you have questions. Contact information is provided at the end of the Request for Information.

Sincerely,

Legal Officer
Submissions on Enforcement Matters Unit

Attachment

cc: Director, Submissions on Enforcement Matters Unit, CEC

Memorandum to the Joint Public Advisory Committee

Memorandum

DATE: 18 September 2012

A / PARA / TO: Chair, JPAC

CC: JPAC Members, Executive Director, Liaison Officer

DE / FROM: Legal Officer, Submissions on Enforcement Matters Unit

OBJET / ASUNTO / RE: Request for information relevant to the factual record on consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*)

As you know, the CEC Secretariat recently began the process of preparing a factual record on consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*). This submission was filed with the Secretariat in July 2006 by Myredd Alexandra Mariscal Villaseñor on her own behalf and representing submitters on submission SEM-06-003. In September 2006, Roberto Abe Almada filed submission SEM06004 (*Ex Hacienda El Hospital III*) and endorsed the assertions of submission SEM06003. Consistent with Council Resolution 12-03, the factual record will focus on the assertion that Mexico is failing to effectively enforce its environmental laws with respect to the operation, shutdown, and decommissioning of a pigment production plant (the “Facility”) operated by BASF Mexicana, S.A. de C.V. (BASF), located in Ex Hacienda de Nuestra Señora de la Concepción El Hospital (“Ex Hacienda El Hospital”) in the municipality of Cuautla, state of Morelos.

I am writing to invite the JPAC to submit information relevant to the factual record, consistent with Article 15(4) (c) and Article 16(5) of the NAAEC. For example, in addition to providing information directly responsive to this request, JPAC members might be able to identify sources of information that the Secretariat could pursue in connection with the factual record. The Request for Information, which is posted on the CEC website, provides a background about the *Ex Hacienda El Hospital II* and *Ex Hacienda El Hospital III* submissions, describes the scope of the information to be included in the factual record, and provides examples of information that might be relevant. We will accept information for possible consideration in connection with the factual record until October 15, 2012.

We appreciate your consideration of this request and look forward to any relevant information you are able to provide. Please feel free to contact me at (514) 350-4321 or <psolano@cec.org> if you have questions regarding this request or the factual record process.

Letter to the Other Parties of the NAAEC

(Canada and US)

18 September 2012

Re: Invitation to provide information relevant to the factual record concerning consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*)

As you know, the CEC Secretariat recently began the process of preparing a factual record concerning consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*), consistent with Council Resolution 1203. I am writing to invite the [Canadian][the United States] Party to submit information relevant to the factual record, in accordance with Article 15(4) of the NAAEC.

The attached Request for Information provides background information of consolidated submissions, describes the scope of the information to be included in the factual record, and provides examples of information that might be relevant. In accordance with the overall work plan, we will accept information for consideration in connection with the factual record until October 15, 2012.

We appreciate your consideration of this request and look forward to any relevant information you are able to provide. For any questions, please send an email to the attention of Paolo Solano, at psolano@cec.org.

Sincerely,

(original signed)
Executive Director

Enclosure

c.c.: US Interim Alternate Representative
Canada Alternate Representative
Mexico Alternate Representative
Director, Submissions on Enforcement Matters Unit

APPENDIX 7

Request for declassification of information

19 October 2012

Director, Legal Affairs Coordinating Unit
Ministry of the Environment and Natural Resources
Delegación Tlalpan
C.P. 14210, México D.F., Mexico

Re: Request for declassification of information for the preparation of the draft factual record in regard to submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated)

I refer to the preparation of the factual record for the submission in question and, particularly, to the Secretariat's current process of gathering relevant factual information. As part of this process, the Secretariat is considering relevant information in accordance with Article 15(4) of the North American Agreement on Environmental Cooperation (NAAEC).

In particular, I would draw your attention to Appendix I of Mexico's response of 10 January 2007, submitted to the Secretariat pursuant to NAAEC Article 14(3). On 15 January 2007, Mexico requested that the information contained in this appendix be treated as per NAAEC Article 39 and paragraph 17 of the Guidelines, as follows:

Further to my letter ... please consider the information submitted as Appendix I and exhibit 1 confidential and reserved, since there is a pending proceeding. For this reason, I request that you treat this information in accordance with NAAEC Article 39 and guidelines 17.2 to 17.4....¹

I would call your attention to this aspect, since the Secretariat has learned that the procedure that was pending on 15 January 2007, when Mexico submitted its request, has been resolved. Appendix I of Mexico's response contains relevant factual information relating to submissions SEM-06-003 and SEM-06-004 (consolidated). However, under the current conditions, the Secretariat cannot make use of the information in Appendix I of Mexico's response for the preparation of the factual record. In compliance with the Council's instructions in Resolution 12-03 of 15 June 2012 and observing the principle of transparency and environmental law enforcement embodied in NAAEC Article 1(g) and (h),² the Secretariat of the Commission for Environmental Cooperation hereby requests the United Mexican States, based on NAAEC Article 21(1)(a), to declassify the documents appearing on the attached list, so that their contents can be reported in the factual record for submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated).

1. Legal Affairs Coordinating Unit, Semarnat, file no. 112/00000265/07 (15 January 2007).

2. NAAEC Article 1:

The objectives of this Agreement are to:

...

(g) enhance compliance with, and enforcement of, environmental laws and regulations;

(h) promote transparency and public participation in the development of environmental laws, regulations and policies...

We request that you inform us of the declassification status of the listed documents no later than **29 October 2012**.

The Secretariat will continue to collect information in accordance with NAAEC Article 15(4).

Sincerely,

Secretariat of the Commission for Environmental Cooperation

(original signed)

Director

Submissions on Enforcement Matters Unit

cc: Evan Lloyd, Executive Director, CEC

Documents in Appendix I of Mexico's response

VOLUME I

Appendix 2:

1. File no. EOO-SVI-DGII-003486 of 27 July 1998 from Profepa to Alfredo Solís Colima.
2. Audit record no. 17-006-0002/98-D of 28 July 1998.
3. Inspection order no. EOO-SVI-DGII-003485 of 27 July 1998 from Profepa to 45 persons domiciled in “El Hospital.”
4. Inspection record no.17-006-0003/98-D of 29 July 1998.

Appendix 3:

5. Audit record no. 17-006-0001/98-D-VA-01 of 24 August 1998 from inspection performed in Ex Hacienda de Nuestra Señora de la Concepción “El Hospital.”
6. File no. PFFA.Mor.084.98 of 2 March 1998 notifying Reyna Puentes Ramírez of the removal of debris dumped by BASF Mexicana, S.A. de C.V.
7. File no. PFFA.Mor.091.98 of 2 March 1998 notifying Mario Ávila Campo of the removal of debris dumped by BASF Mexicana, S.A. de C.V.

Appendix 4:

8. Audit record no. 17—006-0001/98-D-V-03 of 6 October 1998 in Ex Hacienda de Nuestra Señora de la Concepción, or “El Hospital.”
9. Audit record no. 17—006-0001/98-D-V-01 of 17 September 1998 for inspection performed in Ex Hacienda de Nuestra Señora de la Concepción “El Hospital.”
10. File no. EOO-SVI-DGII.-004331 of 17 September 1998 from Profepa to BASF Mexicana, S.A. de C.V. and lot owners.
11. File no. EOO-SVI-DGII.-433/98 of 4 September 1998 from Profepa to Special Attorney for Investigation of Environmental Offenses of the PGR.

VOLUME II

Appendix 5:

12. Audit record no. 17-006-0001/98-D-V-14 of 23 April 1999.
13. File no. EOO.-SVI.-DGII.-238/99 of 17 March 1999 from Profepa to Special Attorney for Investigation of Environmental Offenses.
14. File no. EOO.-SVI.-DGII.-269/99 of 17 March 1999 from Profepa to Special Attorney for Investigation of Environmental Offenses.
15. Profepa decision of 19 February 1999 requiring inspectors from the Industrial Inspection Division to report on the methods used for taking samples on various lots in the locality.
16. Audit record no. 17-006-0001/98-D-V-10 of 21 January 1999.

Appendix 6:

17. File no. EOO.-SVI.-DGII.-717/09 of 6 September 1999 from Profepa.

Appendix 10:

18. File no. EOO-SVI-DGII-569/2000 of 13 June 2000 from Profepa to Special Attorney for Investigation of Environmental Offenses of the PGR.
19. Unnumbered document of 24 March 2000 from Special Attorney for Investigation of Environmental Offenses of the PGR to Profepa.
20. Inspection record no.17-006-0001/98-D-V-25 of 24 May 2000.
21. Profepa Decision of 22 May 2000 ordering that technical staff of the Industrial Auditing Division be commissioned to review the documents relating to the production processes of BASF Mexicana, S.A. de C.V..
22. File no. EOO.SVI.DGII.-483/2000 of 10 May 2000 from Profepa to Special Attorney for Investigation of Environmental Offenses.
23. Inspection record no. 17-006-0001/98-D-V-23 of 30 March 2000.

VOLUME III

Appendix 11:

24. File no. EOO-SVI-DGII-1139/00 of 13 November 2000 from Profepa to Special Attorney for Investigation of Environmental Offenses.
25. Map no. 1, General distribution of areas and depths of soil to be removed, produced by the company Arlo for BASF Mexicana, S.A. de C.V.

Appendix 13:

26. Document of 2 May 2001 from Fernando Morayta Llano representing BASF Mexicana, S.A. de C.V. requesting Profepa approval to commence characterization work in areas near the pipes.
27. Decision of 29 March 2001 whereby Profepa ordered BASF Mexicana, S.A. de C.V. to carry out various work in relation to the pipes found in zone 21 and at the rear of the premises BASF occupied in Ex Hacienda de Nuestra Señora de la Concepción "El Hospital."
28. Memorandum DATI.- 017/2001 of 27 March 2001 from Director, Technical Support for Inspections to Director, Industrial Inspection.

VOLUME IV

Appendix 18:

29. File no. EOO.SVI.DGII.-0481/2001 of 3 May 2001 from Profepa to Roberto Abe Domínguez.
30. Inspection record no.17-006-0001/98-D-V-32 of 9 May 2001.
31. Memorandum no. DGIFC.-107/2001 of 6 July 2001 from Director, Pollution Source Inspection to Director, Industrial/Technical Affairs.

Appendix 19:

32. File no. EOO.SVI.DGIFC.-0755/2001 of 25 July 2001 from Director, Pollution Source Inspection to Deputy Attorney for Environmental Auditing.

Appendix 22:

33. Inspection record no. 17-006-0001/98-D-V-31 of 6 November 2000.

VOLUME V

Appendix 24:

34. Inspection record no. 17-006-0001/98-D-V-34 of 10 September 2001.

Appendix 27:

35. Inspection record no.17-006-0001/98-D-V-35 of 24 September 2001.

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Appendix 28:

36. File no. EOO.-SVI.-DGIFC.-1067/2001 of 7 October 2001 from Director, Pollution Source Inspection to Director, Laboratories.

Appendix 29:

37. Decision of 5 December 2012 from Profepa to BASF Mexicana, S.A. de C.V.

38. Inspection record no.17-006-0001/98-D-V-36 of 5 November 2001.

Appendix 32:

39. Memorandum no. DGIFC.-011/2002 of 26 January 2002 from Director, Pollution Source Inspection to Director, Industrial/Technical Affairs.

Appendix 33:

40. Memorandum no. DGIFC.-0040/2002 of 25 February 2002 from Director, Pollution Source Inspection to Director, Industrial/Technical Affairs.

41. Memorandum no. DGIFC.-013/2002 of 30 January 2002 from Director, Pollution Source Inspection to Director, Industrial/Technical Affairs.

42. Document of 25 January 2002 whereby BASF Mexicana, S.A. de C.V. submitted to Profepa originals of the results of the CRETI analyses corresponding to chains of custody no. 01-1838 and no. 01-1887.

Appendix 41:

43. Inspection record no.17-006-0001/98-D-V-41 of 27 May 2012.

VOLUME VII

Appendix 54

44. Decision no. DGIFC-053/2004 of 31 August 2004 from Profepa to BASF Mexicana, S.A. de C.V.

Appendix 55:

45. Audit record no.DGIFC-AI-MOR.-028/2005 of 11 May 2005.

Appendix 56:

46. Audit record no. DGIFC-AI-MOR.-029/2005 of 23 May 2005.

APPENDIX 8

Requests for information to the PGR and Cofepris

24 October 2012

Director, Special Unit for Investigation of Environmental Offenses and Offenses Contemplated Special Statutes
Office of the Attorney General of the Republic

Re: Request for information relevant to the preparation of a factual record in regard to submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated)

Pursuant to Article 15(2) of the North American Agreement on Environmental Cooperation (NAAEC), the Secretariat of the Commission for Environmental Cooperation (CEC) has a mandate to produce a “factual record” further to Council Resolution 12-03 adopted 15 June 2012. The factual record in regard to submissions SEM-06-003 and SEM-06-004 (consolidated) will address – *inter alia* – the assertion that Mexico is failing to effectively enforce its environmental law in connection with the safety measures provided by Article 421 of the Federal Criminal Code (*Código Penal Federal*—CPF) and the offences defined and sanctioned by the versions of CPF Articles 415 paragraph I and 416 paragraph I in force prior to 6 February 2002, as regards alleged offenses occurred during the operation, closing, and dismantlement of a paint pigment production plant that was operated by BASF Mexicana, S.A. de C.V. in the community of Ex Hacienda de Nuestra Señora de la Concepción El Hospital in the municipality of Cuautla, state of Morelos (the “**Facility**”).

Pursuant to NAAEC Article 11(1), I, the undersigned, represent myself to be the Executive Director of the CEC Secretariat, as appears in Council Resolution 10-01 (Appointment of Executive Director) of 19 April 2010 and in Council Resolution 12-07 (Extension of term of current Executive Director) of 17 August 2012.¹

The CEC Secretariat hereby, pursuant to NAAEC Article 21(1)(a) and Article 16 of the Federal Code of Criminal Procedure (*Código Federal de Procedimientos Penales*—CFPP), respectfully requests the government of the United Mexican States to provide information concerning **facts relating to criminal liability arising from alleged illegal acts of delivery, shipping, and/or disposal of hazardous waste at the Facility and at sites in the community of Ex Hacienda El Hospital**, and in particular:

1. The public version of any *nolle prosequi* decision issued by the Office of the Attorney General of the Republic (*Procuraduría General de la República*—PGR) in relation to criminal investigations carried out in the course of investigating acts or omissions noted by the relevant environmental authority that may have been causing or caused harm to public health, natural resources, fauna, flora, or ecosystems, and in particular, **criminal investigations 43/98, 58/98, A.P. 6344/FEDA/98, A.P. 6244/FEDA/98, A.P. 6243/FEDA/98, A.P.38/2001, and A.P. 897/FEDA/2000.**

The CEC Secretariat requests the Special Unit for Investigation of Environmental Offenses and Offenses Contemplated in Special Statutes to provide the above-mentioned relevant information for the purposes of preparing the factual record in regard to submissions SEM-06-003 and SEM-06-004 (consolidated) pursuant to NAAEC Article 21(1)(a), which provides as follows:

1. The Council Resolutions are available on the CEC website at <http://www.cec.org/council>.

NAAEC Article 21: Provision of Information

1. On request of the Council or the Secretariat, each Party shall, in accordance with its law, provide such information as the Council or the Secretariat may require, including:
 - (a) promptly making available any information in its possession required for the preparation of a report or factual record, including compliance and enforcement data;...²

For the purposes of providing the requested public information, the Secretariat considers it important for the Special Unit to take the following into account:

1. The NAAEC was published in the Official Gazette of the Federation [*Diario Oficial de la Federación*] on 21 December 1993 and took effect in the United Mexican States on 1 January 1994 immediately following the entry into force of the Free Trade Agreement.³ Since this is an international treaty ratified by Mexico, it forms a part of the supreme law of the entire federation pursuant to Article 133 of the Constitution⁴ and is incorporated into the Mexican legal order by virtue of the mechanism enshrined in the constitution;⁵ it is situated “on a second level immediately below the Constitution and above federal and local law,”⁶ and it binds “all the authorities [among others, the Special Unit] with respect to the international community.”⁷
2. The CEC was established by NAAEC Article 8(1) and, pursuant to Article 8(2), is made up of a Council – the governing body of the CEC – a Joint Public Advisory Committee, and a Secretariat headquartered in Montreal, Canada.
3. The Secretariat is the body responsible for implementing the mechanism allowing for submissions on the effective enforcement of environmental law – a mechanism for transparency, access to information, and public participation – established by NAAEC Article 14. Thus, among its powers is that of producing a report known as a “factual record” pursuant to NAAEC Article 15. In particular, for the implementation of NAAEC Articles 15(2) and 15(4) and in order to make effective Council Resolution 12-03, the Secretariat is requesting information from the domestic body known as the “Special Unit for Investigation of Environmental Offenses and Offenses Contemplated in Special Statutes” of the PGR.
4. The Secretariat is requesting information about the aforementioned criminal investigations, since this is public information pursuant to the third paragraph of CFPP Article 16, which provides as follows:

Article 16 ...

...

For the purposes of access to governmental public information, only a public version of the *nolle prosequi* decision shall be provided, provided that a period equal to the statute of limitations for the offenses in question has run, in accordance with the provisions of the Federal Criminal Code, which period may not be less than three nor greater than twelve years following the date when such decision is made final.

...

2. NAAEC Article 21(1)(a)

3. NAAEC Article 47.

4. TRATADOS INTERNACIONALES. SON PARTE INTEGRANTE DE LA LEY SUPREMA DE LA UNIÓN Y SE UBICAN JERÁRQUICAMENTE POR ENCIMA DE LAS LEYES GENERALES, FEDERALES Y LOCALES. INTERPRETACIÓN DEL ARTÍCULO 133 CONSTITUCIONAL. Novena época. Body: Pleno. Source: *Semanario Judicial de la Federación y su Gaceta*, XXV, April 2007, p. 6, tesis: P. IX/2007.

5. TRATADOS INTERNACIONALES. INCORPORADOS AL DERECHO NACIONAL. SU ANÁLISIS DE INCONSTITUCIONALIDAD COMPRENDE EL DE LA NORMA INTERNA. Novena época. Body: Tribunales Colegiados de Circuito. Source: *Semanario Judicial de la Federación y su Gaceta*, XXVI, July 2007, p. 2725, tesis: I.3º.C.79K.

6. TRATADOS INTERNACIONALES. SE UBICAN JERÁRQUICAMENTE POR ENCIMA DE LAS LEYES FEDERALES Y EN UN SEGUNDO PLANO RESPECTO DE LA CONSTITUCIÓN FEDERAL. Novena época. Body: Pleno. Source: *Semanario Judicial de la Federación y su Gaceta*, X, November 1999, p. 46, tesis: P. LXXVII/99.

7. *Ibid.*

5. According to information available to the Secretariat, criminal investigation **6244/FEDA/98** was under the responsibility of the Desk III officer of the Special Unit for Investigation of Environmental Offenses and was initiated in response to a complaint filed by certain residents of El Hospital in connection with the closing and dismantlement of the Facility. Processing of the file concluded in September 1999 with a *nolle prosequi* decision by the Special Unit for Investigation of Environmental Offenses. Since over twelve years have elapsed, it is believed that the *nolle prosequi* decision is information that can be made available to the public and the Secretariat.
6. In relation to criminal investigation **6243/FEDA/98**, it was under the responsibility of the Desk III officer of the Special Unit for Investigation of Environmental Offenses and was initiated in response to a complaint filed by Roberto Abe Domínguez against in connection with environmental offenses allegedly attributable to BASF Mexicana, S.A. de C.V. On 31 January 2008, the *nolle prosequi* decision was approved. The Secretariat has learned that pursuant to the third paragraph of CFPP Article 16:

access would be granted to a public version of the *nolle prosequi* decision three years, one month, and fifteen days following the *nolle prosequi* decision; that is, the time period would begin to run on 31 January 2008, so that access to a public version of the *nolle prosequi* decision would be granted approximately in mid-March 2011.⁸

Therefore, the Secretariat believes that the *nolle prosequi* decision is information that can be made available to the public and the Secretariat.

7. In relation to criminal investigation **897/FEDA/2000**, it was under the responsibility of the Desk III officer of the Special Unit for Investigation of Environmental Offenses and was initiated as an itemization of aforementioned criminal investigation 6243/FEDA/98. According to information available to the Secretariat, the final outcome was apparently that the employees and officials of BASF Mexicana, S.A. de C.V. were discharged from liability while the original complainant, Roberto Abe Domínguez, was sentenced to prison due to the operation of a hog farm on part of the premises of the Facility. In this regard, the Secretariat requests any official information to confirm the outcome of the PGR's investigations.
8. Thus, the Secretariat hereby requests official information concerning the status and outcome of criminal investigations 43/98, 58/98, A.P. 6344/FEDA/98, and A.P.38/2001 as well as any other public information in the possession of the PGR.

In view of the foregoing and taking into consideration the time periods allotted for preparation of the factual record in question,⁹ the CEC Secretariat hereby requests your favorable response to this request by 15 November 2012. Should you need further clarification, please send questions to the following email address, to the attention of Paolo Solano: psolano@cec.org.

Thank you for your attention to this matter.

Sincerely,

Secretariat of the Commission for Environmental Cooperation

(original signed)

Executive Director

cc: Director, Legal Affairs Coordinating Unit, Semarnat
Director, Submissions on Enforcement Matters Unit

8. Federal Access to Public Information Institute, Decision on access to information application no. 0001700033409 in file 1342/09 of 17 June 2009.

9. In this regard, see section 19.5 of the Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation, which reads:
"The Secretariat should conclude the preparation of the draft factual record normally within 180 workingdays of being so instructed by the Council."
In addition, pursuant to NAAEC Article 19, the factual record is produced in the three official languages of the CEC.

21 November 2012

Director, Liaison Unit

Office of the Attorney General of the Republic

Re: Request for information relevant to the preparation of a factual record in regard to submissions SEM-06-003 (Ex Hacienda El Hospital II) and SEM-06-004 (Ex Hacienda El Hospital III) (consolidated)

Pursuant to Article 15(2) of the North American Agreement on Environmental Cooperation (NAAEC), the Secretariat of the Commission for Environmental Cooperation (CEC) has a mandate to produce a “factual record” further to Council Resolution 12-03 adopted 15 June 2012. The factual record in regard to submissions SEM-06-003 and SEM-06-004 (consolidated) will address – *inter alia* – the assertion that Mexico is failing to effectively enforce its environmental law in connection with the safety measures provided by Article 421 of the Federal Criminal Code (*Código Penal Federal*—CPF) and the offences defined and sanctioned by the versions of CPF Articles 415 paragraph I and 416 paragraph I in force prior to 6 February 2002, as regards alleged offenses occurred during the operation, closing, and dismantlement of a paint pigment production plant that was operated by BASF Mexicana, S.A. de C.V. in the community of Ex Hacienda de Nuestra Señora de la Concepción El Hospital in the municipality of Cuautla, state of Morelos (the “**Facility**”).

Pursuant to NAAEC Article 11(1), I, the undersigned, represent myself to be the Executive Director of the CEC Secretariat, as appears in Council Resolution 10-01 (Appointment of Executive Director) of 19 April 2010 and Council Resolution 12-07 (Extension of term of current Executive Director) of 17 August 2012.¹⁰

The CEC Secretariat hereby, pursuant to NAAEC Article 21(1)(a), Article 16 of the Federal Code of Criminal Procedure (*Código Federal de Procedimientos Penales*—CFPP), and Article 40 of the Federal Transparency and Access to Public Governmental Information Act (*Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental*—LFTAIPG), respectfully requests the government of the United Mexican States to provide information concerning **facts relating to criminal liability arising from alleged illegal acts of delivery, shipping, and/or disposal of hazardous waste from the Facility at sites in the community of Ex Hacienda El Hospital**, and in particular:

1. The public version of any *nolle prosequi* decision issued by the Office of the Attorney General of the Republic (*Procuraduría General de la República*—PGR) in relation to criminal investigations carried out in the course of investigating acts or omissions noted by the relevant environmental authority that may have been causing or caused harm to public health, natural resources, fauna, flora, or ecosystems, and in particular, **criminal investigations 43/98, 58/98, A.P. 6344/FEDA/98, A.P. 6244/FEDA/98, A.P. 6243/FEDA/98, and A.P.38/2001.**

The CEC Secretariat requests the PGR Liaison Unit to provide the above-mentioned relevant information for the purposes of preparing the factual record in regard to submissions SEM-06-003 and SEM-06-004 (consolidated) pursuant to NAAEC Article 21(1)(a) and LFTAIPG Article 40, which provide as follows:

NAAEC Article 21: Provision of Information

1. On request of the Council or the Secretariat, each Party shall, in accordance with its law, provide such information as the Council or the Secretariat may require, including:

¹⁰. The Council Resolutions are available on the CEC website at <http://www.cec.org/council>.

- (a) promptly making available any information in its possession required for the preparation of a report or factual record, including compliance and enforcement data;...¹¹

LFTAIPG Article 40. Any person or his representative may submit a request for access to information to the liaison unit by means of a written document or using the forms approved by the Institute.

For the purposes of providing the requested public information, the Secretariat considers it important for the Liaison Unit to take the following into account:

9. The NAAEC was published in the Official Gazette of the Federation [*Diario Oficial de la Federación*] on 21 December 1993 and took effect in the United Mexican States on 1 January 1994 immediately following the entry into force of the Free Trade Agreement.¹² Since this is an international treaty ratified by Mexico, it forms a part of the supreme law of the entire federation pursuant to Article 133 of the Constitution¹³ and is incorporated into the Mexican legal order by virtue of the mechanism enshrined in the constitution;¹⁴ it is situated “on a second level immediately below the Constitution and above federal and local law,”¹⁵ and it binds “all the authorities [among others, the Liaison Unit] with respect to the international community.”¹⁶
10. The CEC was established by NAAEC Article 8(1) and, pursuant to Article 8(2), is made up of a Council – the governing body of the CEC – a Joint Public Advisory Committee, and a Secretariat headquartered in Montreal, Canada.
11. The Secretariat is the body responsible for implementing the mechanism allowing for submissions on the effective enforcement of environmental law – **a mechanism for transparency, access to information, and public participation** – established by NAAEC Article 14. Thus, among its powers is that of producing a report known as a “factual record” pursuant to NAAEC Article 15. In particular, for the implementation of NAAEC Articles 15(2) and 15(4) and in order to make effective Council Resolution 12-03, the Secretariat is requesting information from the domestic body known as the “Liaison Unit of the Office of the Attorney General of the Republic.”
12. On 24 October 2012, the Secretariat sent a letter to Alicia Rosas Rubí, Director of the Special Unit for Investigation of Environmental Offenses and Offenses Contemplated Special Laws of the PGR for the information requested in the current letter. In file no. UEIDAPLE-DA-667-2012 of 12 November, Héctor Gerardo Mata Osante, Officer of the Public Prosecutor’s Office (*Ministerio Público de la Federación*), in the absence of the Director for Environmental Offenses, responded as follows:

And for the purposes of issuing a public version to the applicant, the application would have to be made to the Federal Access to Information and Data Protection Institute (*Instituto Federal de Acceso a la Información y Protección de Datos*) [*sic*], and the Institute would then in turn have to apply to the PGR, as may be determined from the Federal Transparency and Access to Public Governmental Information Act.... For this reason, the Environmental Offenses Unit is unable to fulfill the applicant’s request.

11. NAAEC Article 21(1)(a).

12. NAAEC Article 47.

13. TRATADOS INTERNACIONALES. SON PARTE INTEGRANTE DE LA LEY SUPREMA DE LA UNIÓN Y SE UBICAN JERÁRQUICAMENTE POR ENCIMA DE LAS LEYES GENERALES, FEDERALES Y LOCALES. INTERPRETACIÓN DEL ARTÍCULO 133 CONSTITUCIONAL. Novena época. Body: Pleno. Source: *Semanario Judicial de la Federación y su Gaceta*, XXV, April 2007, p. 6, tesis: P. IX/2007.

14. TRATADOS INTERNACIONALES. INCORPORADOS AL DERECHO NACIONAL. SU ANÁLISIS DE INCONSTITUCIONALIDAD COMPRENDE EL DE LA NORMA INTERNA. Novena época. Body: Tribunales Colegiados de Circuito. Source: *Semanario Judicial de la Federación y su Gaceta*, XXVI, July 2007, p. 2725, tesis: I.3° C.79K.

15. TRATADOS INTERNACIONALES. SE UBICAN JERÁRQUICAMENTE POR ENCIMA DE LAS LEYES FEDERALES Y EN UN SEGUNDO PLANO RESPECTO DE LA CONSTITUCIÓN FEDERAL. Novena época. Body: Pleno. Source: *Semanario Judicial de la Federación y su Gaceta*, X, November 1999, p. 46, tesis: P. LXXVII/99.

16. *Ibid.*

13. By virtue of the foregoing and in accordance with LFTAIPG Article 41, the Liaison Unit is the liaison between the agency or entity and the applicant, i.e., between the Office of the Attorney General of the Republic and the Secretariat in this case.

14. The Secretariat is requesting information about the aforementioned criminal investigations, since **this is public information** pursuant to the third paragraph of CFPP Article 16, which provides as follows:

Article 16...

...

For the purposes of access to governmental public information, only a public version of the *nolle prosequi* decision shall be provided, provided that a period equal to the statute of limitations for the offenses in question has run, in accordance with the provisions of the Federal Criminal Code, which period may not be less than three nor greater than twelve years following the date when such decision is made final.

15. According to information available to the Secretariat, criminal investigation **6244/FEDA/98** was under the responsibility of the Desk III officer of the Special Unit for Investigation of Environmental Offenses and was initiated in response to a complaint filed by certain residents of El Hospital in connection with the closing and dismantlement of the Facility. Processing of the file concluded in September 1999 with a *nolle prosequi* decision by the Special Unit for Investigation of Environmental Offenses. Since over twelve years have elapsed, it is believed that the *nolle prosequi* decision is information that can be made available to the public and the Secretariat.

16. In relation to criminal investigation **6243/FEDA/98**, this was under the responsibility of the Desk III officer of the Special Unit for Investigation of Environmental Offenses and was initiated in response to a complaint filed by Roberto Abe Domínguez in connection with alleged environmental offenses allegedly attributable to BASF Mexicana, S.A. de C.V. On 31 January 2008, the *nolle prosequi* decision was approved. The Secretariat has learned that pursuant to the third paragraph of CFPP Article 16:

access would be granted to a public version of the *nolle prosequi* decision three years, one month, and fifteen days following the *nolle prosequi* decision; that is, the time period would begin to run on 31 January 2008, so that access to a public version of the *nolle prosequi* decision would be granted approximately in mid-March 2011.¹⁷

Therefore, the Secretariat believes that the *nolle prosequi* decision is information that can be made available to the public and the Secretariat.

17. Thus, the Secretariat hereby requests official information concerning the status and outcome of criminal investigations 43/98, 58/98, A.P. 6344/FEDA/98, and A.P.38/2001 as well as any other public information in the possession of the PGR.

17. Federal Access to Public Information Institute, Decision on access to information application no. 0001700033409 in file 1342/09 of 17 June 2009.

Should this information be unavailable in electronic form, we would appreciate it being sent to either of the following addresses:

CEC Secretariat Submissions on Enforcement Matters Unit 393, rue St-Jacques Ouest, bureau 200 Montreal QC H2Y 1N9 Canada Tel.: (514) 350-4300	CEC/Mexico Liaison Office Attention: Submissions on Enforcement Matters Unit Progreso núm. 3 Viveros de Coyoacán México, D.F., 04110, Mexico Tel.: (55) 5659-5021
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Please refer to submission SEM-06-003 (*Ex Hacienda El Hospital II*) and/or submission SEM-06-004 (*Ex Hacienda El Hospital III*) in your correspondence.

In view of the foregoing and taking into consideration the time periods allotted for preparation of the factual record in question,¹⁸ the CEC Secretariat hereby requests:

1. Acknowledge the legal authority of the undersigned;
2. Respond favorably to this request, and
3. Provide information relevant to the preparation of the factual record at your earliest convenience, by e-mail to <sem@cec.org>.

Thank you for your attention to this matter.

Sincerely,

Secretariat of the Commission for Environmental Cooperation

(original signed)
Executive Director

cc: Director, Legal Affairs Coordinating Unit, Semarnat
Director, Submissions on Enforcement Matters Unit

18. In this regard, see section 19.5 of the Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation, which reads:

“The Secretariat should conclude the preparation of the draft factual record normally within 180 workingdays of being so instructed by the Council.”
In addition, pursuant to NAAEC Article 19, the factual record is produced in the three official languages of the CEC.

24 October 2012

**Federal Commissioner
Federal Commission for Health Risk Prevention**

Re: Request for information relevant to the preparation of a factual record in regard to submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*) (consolidated)

Pursuant to Article 15(2) of the North American Agreement on Environmental Cooperation (NAAEC), the Secretariat of the Commission for Environmental Cooperation (CEC) has a mandate to produce a “factual record” further to Council Resolution 12-03 adopted 15 June 2012. The factual record in regard to submissions SEM-06-003 and SEM-06-004 (consolidated) will address – *inter alia* – the assertion that Mexico is failing to effectively enforce its environmental law in connection with alleged offenses occurred during the operation, closing, and dismantlement of a paint pigment production plant that was operated by BASF Mexicana, S.A. de C.V. in the community of Ex Hacienda de Nuestra Señora de la Concepción El Hospital in the municipality of Cuautla, state of Morelos (the “Facility”).

Pursuant to NAAEC Article 11(1), I, the undersigned, represent myself to be the Executive Director of the CEC Secretariat, as appears in Council Resolution 10-01 (Appointment of Executive Director) of 19 April 2010 and in Council Resolution 12-07 (Extension of term of current Executive Director) of 17 August 2012.¹⁹

The CEC Secretariat hereby, pursuant to NAAEC Article 21(1)(a), respectfully requests the government of the United Mexican States to provide information concerning **facts relating to alleged illegal acts of delivery, shipping, and/or disposal of hazardous waste on the premises of the Facility and at sites in the community of Ex Hacienda El Hospital**. In particular, the Secretariat has learned that in May 2002 and July 2003, the Federal Commission for Health Risk Prevention (*Comisión Federal para la Prevención de Riesgos Sanitarios—Cofepris*), acting by its Environmental Health Division, conducted sampling on minors aged 15 in the community of Ex Hacienda El Hospital to detect cases of blood lead levels. The Secretariat has also learned that the study or studies may have comprised sampling to detect the presence of lead in the locality in question. In this regard, we request any public information that Cofepris may have in its possession, including:

- a) Maps (in high-quality electronic format with vectors usable in GIS, Autocad, or Acrobat) of the municipality of Cuautla identifying the location of the locality of Ex Hacienda El Hospital and the boundaries of the Facility formerly operated by BASF. In addition, the maps may include clear identification of the lots making up the locality of Ex Hacienda El Hospital and the points on these lots where any environmental contaminant sampling was performed.
- b) Information on facts relating to alleged hazardous waste disposal on the premises of the Facility, including steps, measures, and any other activity taken to reduce the potential public health risks arising from alleged improper handling of hazardous waste at the BASF Facility.
- c) Information on facts relating to assessment of the property and health of the inhabitants of the locality of Ex Hacienda El Hospital subsequent to removal of materials and wastes, including steps, measures, plans and/or programs implemented to assess and prevent human health harms.

19. The Council Resolutions are available on the CEC website at <http://www.cec.org/council>.

The CEC Secretariat requests Cofepris to provide the above-mentioned relevant information for the purposes of preparing the factual record in regard to submissions SEM-06-003 and SEM-06-004 (consolidated) based on NAAEC Article 21(1)(a), which provides as follows:

Article 21: Provision of Information

1. On request of the Council or the Secretariat, each Party shall, in accordance with its law, provide such information as the Council or the Secretariat may require, including:
 - (a) promptly making available any information in its possession required for the preparation of a report or factual record, including compliance and enforcement data,...

For the purposes of providing the requested public information, the Secretariat considers it important for Cofepris to take the following into account:

18. The NAAEC was published in the Official Gazette of the Federation [*Diario Oficial de la Federación*] on 21 December 1993 and took effect in the United Mexican States on 1 January 1994 immediately following the entry into force of the Free Trade Agreement.²⁰ Since this is an international treaty ratified by Mexico, it forms a part of the supreme law of the entire federation pursuant to Article 133 of the Constitution,²¹ and is incorporated into the Mexican legal order by virtue of the mechanism enshrined in the constitution;²² it is situated “on a second level immediately below the Constitution and above federal and local law,”²³ and it binds “all the authorities [among others, the Liaison Unit] with respect to the international community.”²⁴
19. The CEC was established by NAAEC Article 8(1) and, pursuant to Article 8(2), is made up of a Council – the governing body of the CEC – a Joint Public Advisory Committee, and a Secretariat headquartered in Montreal, Canada.
20. The Secretariat is the body responsible for implementing the mechanism allowing for submissions on the effective enforcement of environmental law – a mechanism for transparency, access to information, and public participation – established by NAAEC Article 14. Thus, among its powers is that of producing a report known as a “factual record” pursuant to NAAEC Article 15. For the implementation of NAAEC Articles 15(2) and 15(4) and in order to make effective Council Resolution 12-03 instructing the Secretariat to prepare the factual record in question, the Secretariat is requesting information from Cofepris, a commission of the Ministry of Health.
21. The Secretariat requests information about the above-described environmental and/or human health risk studies, since this is public information as per the Federal Transparency and Access to Public Governmental Information Act (*Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental*—LFTAIPG), the applicable special law regulating Article 6 of the Constitution which, according to the constitutional principles of maximum publicity and time limits on the withholding of information, regulates access to information.²⁵

20. NAAEC Article 47.

21. TRATADOS INTERNACIONALES. SON PARTE INTEGRANTE DE LA LEY SUPREMA DE LA UNIÓN Y SE UBICAN JERÁRQUICAMENTE POR ENCIMA DE LAS LEYES GENERALES, FEDERALES Y LOCALES. INTERPRETACIÓN DEL ARTÍCULO 133 CONSTITUCIONAL. Novena época. Body: Pleno. Source: *Semanario Judicial de la Federación y su Gaceta*, XXV, April 2007, p. 6, tesis: P. IX/2007

22. TRATADOS INTERNACIONALES. INCORPORADOS AL DERECHO NACIONAL. SU ANÁLISIS DE INCONSTITUCIONALIDAD COMPRENDE EL DE LA NORMA INTERNA. Novena época. Body: Tribunales Colegiados de Circuito. Source: *Semanario Judicial de la Federación y su Gaceta*, XXVI, July 2007, p. 2725, tesis: I.3º.C.79K.

23. TRATADOS INTERNACIONALES. SE UBICAN JERÁRQUICAMENTE POR ENCIMA DE LAS LEYES FEDERALES Y EN UN SEGUNDO PLANO RESPECTO DE LA CONSTITUCIÓN FEDERAL. Novena época. Body: Pleno. Source: *Semanario Judicial de la Federación y su Gaceta*, X, November 1999, p. 46, tesis: P'. LXXVII/99.

24. *Ibid.*

25. Political Constitution of the United Mexican States, Article 6 paragraph I. See also Instituto Federal de Acceso a la Información y Protección de Datos, “Voto disidente del Comisionado Ponente Alonso Gómez Robledo al Recurso de Revisión Núm. 1342/09,” pleno (17 June 2007).

22. Serving as a basis for this request are the provisions of the LFTAIPG establishing that the information contemplated in this act is public,²⁶ and corroborating the constitutional principle of “maximum publicity and availability of information in the possession of the agencies receiving and administering public monies (*sujetos obligados*).”²⁷ Moreover, the LFTAIPG recognizes that access to information is subject to “international instruments signed and ratified by the Mexican state,”²⁸ such as the NAAEC, whose Article 21(1)(a) obligates Mexico to provide information to the CEC Secretariat, in accordance with Mexico’s domestic law.
23. In this regard, LFTAIPG Articles 13 and 14 and the General Guidelines for Classification and Declassification of Information Held by the Agencies and Entities of the Federal Public Administration²⁹ specifically contemplate the cases and circumstances in which governmental information may be withheld. The Secretariat finds that the information requested is public and does not meet any of the criteria established by said provisions.
24. Cofepris, as an entity (*sujeto obligado*) covered by LFTAIPG³⁰ and a body of the government of Mexico from which information is requested under the NAAEC, must provide information that is useful or considered relevant, pursuant to LFTAIPG Article 7 paragraph XVII. The Secretariat finds not only that the information requested is useful and relevant, but also that its dissemination is in the public and societal interest since it is information about health and alleged exposure to environmental risks arising from activities at the Facility formerly operated by and dismantled by BASF in El Hospital.
25. Finally, Cofepris is obligated to provide the Secretariat with the information requested pursuant to NAAEC Article 21(1)(a). If pertinent, said information will be included in the factual record for submissions SEM-06-003 and SEM-06-004 (consolidated), which itself will be available to the general public in due course.

In light of the foregoing and in accordance with the calendar established for the preparation of the factual record in question,³¹ the CEC Secretariat hereby asks for your favorable response to this request no later than **15 November 2012**. Should any clarification be necessary, please send questions to the following e-mail address, attention Paolo Solano: psolano@cec.org.

Thank you for your attention to this matter.

Sincerely,

Secretariat of the Commission for Environmental Cooperation

(original signed)
Executive Director

cc: Director, Legal Affairs Coordinating Unit, Semarnat
Director, Submissions on Enforcement Matters Unit

26. LFTAIPG Article 2.

27. LFTAIPG Article 6.

28. *Ibid.*

29. Published in the Official Gazette of the Federation on 18 August 2003.

30. LFTAIPG Article 3 paragraph XIV.

31. In this regard, see section 19.5 of the Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation, which reads: “The Secretariat should conclude the preparation of the draft factual record normally within 180 working days of being so instructed by the Council.” In addition, pursuant to NAAEC Article 19, the factual record is produced in the three official languages of the CEC.

APPENDIX 9

Consultant's declaration of acceptance, impartiality and independence

CONSULTANT'S DECLARATION OF ACCEPTANCE
AND STATEMENT OF IMPARTIALITY AND INDEPENDENCE
FOR CONSOLIDATED SUBMISSIONS SEM-06-003 (*Ex Hacienda El Hospital II*) AND
SEM-06-004 (*Ex Hacienda El Hospital II*)

I, the undersigned,

Last Name: ANGLÉS HERNÁNDEZ

First Name: MARISOL

NON-ACCEPTANCE

- hereby declare that I **decline** to serve as consultant in the subject file. (If you wish to state the reasons for checking this box, please use a separate sheet of paper, attaching that to this declaration.)

ACCEPTANCE

- hereby declare that I **accept** to serve as consultant in the instant matter. In so declaring, I confirm that I have familiarized myself with the requirements of Articles 14 and 15 of the North American Agreement on Environmental Cooperation ("NAAEC") and the matters raised in the above submission, and that I am competent, reliable, and available to serve as an consultant on questions of the United Mexican States's environmental laws.

IMPARTIALITY AND INDEPENDENCE

(If you accept to serve as consultant, please also check one of the two following boxes. The choice of which box to check will be determined after you have taken into account, inter alia, whether there exists any past or present relationship, direct or indirect, with any of the submitters or their counsel, or the Party concerned, whether financial, professional or of another kind and whether the nature of any such relationship is such that disclosure is called for pursuant to the criteria set out below. Any doubt should be resolved in favor of disclosure.)

- I am impartial and independent with respect to the Submitters of the consolidated submissions SEM-06-003 (Ex Hacienda El Hospital II) and SEM-06-004 (Ex Hacienda El Hospital III), and with the NAAEC Party, Government of United Mexican States, and intend to remain so; to the best of my knowledge, there are no facts or circumstances, past or present that need be disclosed because they are likely to give rise to justifiable doubts as to my impartiality or independence.

OR

- I am **impartial and independent** with respect to the Submitters of the consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*), and with the NAAEC Party, Government of United Mexican States, and intend to remain so; **however**, I wish to call your attention to the following facts or circumstances which I hereafter disclose because they might be of such a nature as to give rise to justifiable doubts as to my impartiality or independence. (Use separate sheet and attach.)

Date: 7 September 2013

Signature: (*original signed*)

APPENDIX 10

Environmental Law in Question

Environmental law in question for development Factual Record concerning consolidated submissions SEM-06-003 (*Ex Hacienda El Hospital II*) and SEM-06-004 (*Ex Hacienda El Hospital III*)

General Ecological Balance and Environmental Protection Act

Article 134.- For the prevention and control of soil contamination, the following criteria shall be considered:

- I. It is the responsibility of the state and society to prevent soil contamination;
- II. Wastes must be controlled given that they constitute the principal source of soil contamination;
- III. It is necessary to prevent and reduce the generation of solid, municipal and industrial wastes, to incorporate techniques and procedures for their reuse and recycling, and to regulate their efficient management and final disposal;
- IV. The use of pesticides, fertilizers and toxic substances must be compatible with the stability of ecosystems and must take account of their effects on human health, so as to prevent any damage they may cause, and
- V. The necessary actions shall be taken to restore or reestablish the quality of soil that is contaminated by the presence of hazardous materials or waste, in such a manner that it can be used in any type of activity contemplated in the applicable urban development or ecological zoning plan.

Article 135.- The criteria for prevention and control of soil contamination shall be considered in the following cases:...

- III. The generation, management, and final disposal of solid, industrial, and hazardous wastes as well as for the granting of any approvals or permits for such purpose.

Article 136.- The conditions that shall be met by wastes accumulating or that may accumulate and are dumped or seep into soils, such that these shall meet the conditions necessary to prevent or avoid:

- I. Soil contamination;
- II. Harmful alterations of soil biological processes;
- III. Alterations of the soil that jeopardize its enjoyment, use, or exploitation, and;
- IV. Health risks and problems.

Article 139.- Any discharge, dumping, or seepage of contaminating substances or materials into soil shall comply with the provisions of this Act, the National Waters Act, their regulatory provisions, and any applicable Mexican official standards that may be issued by the Ministry.

Article 150.- Hazardous materials and wastes shall be managed in accordance with this Act, its Regulation [the RRP], and any applicable Mexican Official Standards issued by the Ministry [e.g., NOM-052 and NOM-053], after soliciting the opinion of the ministries of Trade and Industrial Development, Health, Energy, Communications and Transportation, the Marine, and the Interior. Regulation of the management of these materials and wastes shall include, as applicable, their use, collection, storage, transportation, reuse, recycling, treatment, and final disposal. The Regulation and the Mexican Official Standards to which the preceding paragraph refers shall contain the criteria and lists classifying materials and waste as hazardous, identifying them by their level of hazardousness, and considering their characteristics and volumes. The Ministry has jurisdiction over the regulation and control of hazardous materials and wastes.

In addition, the Ministry, in coordination with the agencies to which this article refers, shall promulgate Mexican Official Standards that shall establish the requirements for the labeling and packing of hazardous materials and wastes, as well as for the assessment of risk and information relating to contingencies and accidents that may arise in the course of their management, particularly as regards chemical substances.

Article 151.- responsibility for the management and final disposal of hazardous waste rests with the generator. Where hazardous waste management and final disposal services are contracted out to companies authorized by the Ministry and wastes are delivered to these companies, responsibility for operations shall rest with these companies, irrespective of any responsibility that may rest with the generator..

Anyone who generates, reuses, or recycles hazardous waste shall so notify the Ministry as prescribed by the Regulation to this Act.

In approvals for the establishment of hazardous waste containment facilities, only wastes whose reuse, recycling, or thermal or physicochemical destruction is technically or economically unfeasible shall be included, and the containment of hazardous waste in the liquid state shall not be permitted.

Article 152 bis.- Where the generation, management, or final disposal of hazardous materials or waste causes soil contamination, the persons responsible for such operations shall take the measures necessary to restore the soil to its original condition, so that it may be used for any of the activities contemplated in any urban development or ecological zoning plan applicable to the property or zone in question.

Article 169.- The relevant administrative decision shall indicate or include, as the case may be, the measures that must be taken to correct any deficiencies or irregularities observed, the time period for compliance by the violator, and any sanctions to which the violator may be liable pursuant to the applicable provisions.

Within the five working days following the expiry of the period granted to the violator in which to cure the deficiencies or irregularities observed, the violator shall give detailed notice in writing to the ordering authority of having complied with the measures ordered in the manner prescribed by the applicable order.

In the case of a second or subsequent inspection to verify compliance with a previous order or orders, where a lack of compliance with measures previously ordered is evident from the resulting official record, in addition to the sanctions arising from Article 171 of this Act, the competent authority shall impose a fine not exceeding the maximum limits set out in that provision.

In cases where the violator performs the corrective or urgent measures or cures the irregularities detected within the time period ordered by the Ministry, provided that the violator is not a repeat violator and none of the criteria set out in Article 170 of this Act obtains, the Ministry may revoke or amend the sanction or sanctions imposed.

In appropriate cases, the federal authority shall notify the Office of the Public Prosecutor of the occurrence of acts or omissions noted during the exercise of its powers that may constitute one or more offenses.

Article 170.- In case of imminent risk of ecological instability or of serious harm to or deterioration of natural resources, or in cases of contamination with dangerous consequences for ecosystems, their components, or public health, the Ministry may, with due justification, order any of the following safety measures:

- I. The temporary partial or total shutdown of pollution sources and of facilities handling or storing specimens, products, or subproducts of species of wild flora or fauna, forest resources, or carrying on activities giving rise to the conditions to which the first paragraph of this article refers;
- II. The seizure of hazardous materials and wastes as well as specimens, products, or subproducts of wild flora or fauna species or their genetic material, forest resources, and also property, vehicles, tools, and instruments directly related to the conduct giving rise to the application of the safety measure, or
- III. Neutralization or any similar measure to prevent hazardous materials or wastes from giving rise to the effects contemplated in the first paragraph of this article.

In addition, the Ministry may apply to the competent authority for the application of any safety measure or measures that may be prescribed by other provisions.

Federal Criminal Code

Article 415 [Text in force prior to the revision of 6 February 2002]. Anyone who does the following is liable to a prison term of three months to six years and one thousand to twenty thousand days' fine:

- I. engages in any activity with hazardous materials or wastes that causes or could cause harm to public health, natural resources, fauna, flora, or ecosystems without the authorization of the competent federal authority or in violation of any terms under which such activity may have been authorized..

...

Article 416 [Text in force prior to the revision of 6 February 2002]. Anyone who does the following without any approval that may be applicable or in violation of the legal or regulatory provisions or Mexican official standards is liable to a prison term of three months to six years and one thousand to twenty thousand days' fine:

- I. Discharges, dumps, or allows to seep, or authorizes or orders the discharge, dumping, or seepage of, wastewater, chemical or biochemical liquids, refuse, or contaminants into soils, marine waters, rivers, basins, ponds, or other bodies of water or watercourses under federal jurisdiction that cause or may cause harm to public health, natural resources, flora, fauna, the quality of water in watersheds, or ecosystems

...

Article 421.- In addition to the provisions of the preceding chapters of Title Twenty Five, one or more of the following penalties or safety measures shall be ordered:

- I. The taking of the measures necessary to restore the natural elements making up the affected ecosystems to the condition they were in before the offense took place;
- II. The suspension, modification, or demolition of any structures, works, or activities, as the case may be, that may have given rise to the environmental offense in question;
- III. The reintroduction of the natural elements, specimens or species of wild flora or fauna into the habitat from which they were removed, provided that their reintroduction does not pose a threat to ecological stability or impede the reproduction or migration of wild flora or fauna species; and
- IV. The return of the hazardous materials or wastes or specimens of threatened or endangered wildlife species to the country of origin, with adherence to the stipulations of international treaties and conventions to which Mexico is a party.

For the purposes to which this article refers, the judge shall request the issuance of the appropriate technical report from the competent federal body or from institutions of higher education or scientific investigation.

Regulation to the General Ecological Balance and Environmental Protection Act respecting Hazardous Waste

Article 8.- The hazardous waste generator shall:

- X. Provide the appropriate final disposal for its hazardous waste in accordance with the methods set out in the Regulation and with the provisions of any applicable environmental technical standards; [...]

Article 10.- Approval of the Ministry is required in order to install and operate systems for the collection, storage, transportation, housing, reuse, treatment, recycling, incineration, and/or final disposal of hazardous waste, as well as for the provision of services relating to these operations, without prejudice to the applicable health and occupational health and safety provisions.

Article 12.- Authorized persons under Article 10 of this Regulation shall, prior to the commencement of their operations, submit:

- I. A training program covering the personnel responsible for hazardous waste management and the equipment relating to it;
- II. Documentation certifying the person holding technical responsibility; and
- III. A contingency response plan

Mexican Official Standards

[Only the titles are presented.]

Mexican Official Standard **NOM-052-SEMARNAT-1993** *Establishing the characteristics, identification procedure, and lists of hazardous waste*

Mexican Official Standard **NOM-053-SEMARNAT-1993** *Establishing the procedure for conducting extraction testing to determine the components that make a waste hazardous due to its toxicity in the environment*

APPENDIX 11

Wastes generated at the Facility

Hazardous wastes generated by BASF Mexicana, S.A. de C.V. at the Facility

The Company BASF Mexicana, S.A. de C.V. generated the following hazardous wastes during the pigment manufacturing process. It should be noted that the volume of the wastes in question is unavailable because the Company did not keep a generation log.¹

- Bags of ammonium persulfate
- Bags formerly containing antimony trioxide persulfate with arsenic impurities
- Bags formerly containing sodium fluoride
- Bags formerly containing sodium molybdate
- Bags of sodium dichromate
- Bags formerly containing lead molybdate and chromate pigment
- Gloves and cloth fibre waste impregnated with lead molybdate and chromate pigment
- Face masks impregnated with lead molybdate and chromate pigment
- Polyethylene bags impregnated with lead molybdate and chromate pigment
- Pieces of wood and boards impregnated with lead molybdate and chromate pigment
- Diesel-soaked sawdust
- Oil-soaked rags
- Caustic soda residues
- Residues from diesel tank spill
- Used lubricating oil
- Metal drums, 200 l, with lead molybdate and chromate pigment residues
- Sludge from the wastewater treatment plant
- Plastic jugs formerly containing hydrochloric acid and phosphoric acid
- Empty bags with traces of cobalt and selenium
- Pigment-impregnated filter paper samples
- Roof asbestos
- Beakers containing pigment tests
- Beakers formerly containing toxic and/or corrosive chemicals

1. Source: Profepa, Expert report (10 August 2001), at 6–7.



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