

***UNOFFICIAL TRANSLATION***

**Party response of the government of the United  
Mexican States**

**Submission SEM-18-003  
(Hydraulic Fracturing in Nuevo León)**

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**Filed with the Secretariat of the Commission for Environmental Cooperation  
pursuant to Article 14(3) of the North American Agreement on  
Environmental Cooperation**

## I. INTRODUCTION

On 3 October 2018, the Secretariat of the Commission for Environmental Cooperation (the “Secretariat” of the “CEC”) received a submission from a person residing in Mexico (the “Submitter”) under Article 14(1) of the North American Agreement on Environmental Cooperation (NAAEC), who invoked NAAEC Article 11(8)(a) in requesting the confidentiality of his personal information. The Submitter asserted that the government of Mexico failed to effectively enforce the environmental law in connection with the site restoration and abandonment subsequent to hydraulic fracturing that had taken place in the community of Hacienda El Carrizo, municipality of Los Ramones, Nuevo León.<sup>1</sup>

In its determination of 15 November 2018, the Secretariat notified the Submitter that the submission as filed did not meet the eligibility requirements of NAAEC Article 14(1), since it did not indicate the specific provisions of environmental law that the competent authorities allegedly failed to enforce and did not present information on communication of the matter to the competent Mexican authorities. Consequently, pursuant to paragraphs 6.1 and 6.2 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “NAAEC Guidelines”), the Submitter was given 60 days in which to file a revised submission.

On 21 February 2019, the Secretariat received the revised submission, which, in addition to including the information required in the determination of 15 November 2018, added a second submitter, who also requested confidentiality under NAAEC Article 11(8)(a).<sup>2</sup>

The Submitters asserted that Petróleos Mexicanos (PEMEX) “has been exploring for hydrocarbons in the area of ‘Los Ramones’ and at other sites in the state of Nuevo León,” and that two wells, “Tangram 1” and “Nerita 1,” were drilled in that area “to use hydraulic fracturing and explore for hydrocarbons.”<sup>3</sup> They likewise assert that “the manner in which the Mexican authorities approved hydraulic fracturing in this area illustrates the violation of Mexican environmental law”; specifically, they contend that the Ministry of the Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*–Semarnat) did not require PEMEX “to comply with the requirement to produce an environmental impact statement (EIS),” or, if one was in fact produced, did not enforce compliance with the corresponding mitigation measures.<sup>4</sup>

Of the provisions to which the Submitter refers, the Secretariat retained the following legal provisions for review as part of this submission process:

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<sup>1</sup> SEM-18-003 (*Hydraulic Fracturing in Nuevo León*), Article 14(1) Determination, 8 May 2019 (“Article 14(1) Determination”) at par. 2, online at [http://www.cec.org/sites/default/files/submissions/2016\\_2020/16-det\\_es.pdf](http://www.cec.org/sites/default/files/submissions/2016_2020/16-det_es.pdf) (viewed March 2020).

<sup>2</sup> *Ibid.*, par. 3-4.

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.*, par. 5.

### **A) Environmental impact assessment**

- Article 28 paragraphs I and XIII of the Mexican Environmental Protection Act (*Ley General del Equilibrio Ecológico y la Protección al Ambiente*–LGEEPA) as regards the obligation to file an EIS before a project is approved.

### **B) Responsibility for environmental harm and establishment of safety measures**

- Article 10 of the Federal Environmental Responsibility Act (*Ley Federal de Responsabilidad Ambiental*–LFRA) and LGEEPA Article 15 paragraphs II and IV in relation to the alleged responsibility of PEMEX for environmental harm, and
- LGEEPA Article 170, authorizing Semarnat to apply safety measures.

### **C) Water quality**

- LGEEPA Article 88 paragraph III on sustainable water use;
- LGEEPA Article 122, applicable to control of wastewater;
- Article 91 of the Regulation to the Mexican Integrated Waste Prevention and Management Act (*Reglamento de la Ley General para la Prevención y Gestión Integral de los Residuos*–LGPGIR Regulation), which requires that wastewater be discharged into geologically stable formations, and
- Articles 8, 16, and 18 of the Guidelines applicable to the prevention of subsoil and aquifer contamination (“Contamination Prevention Guidelines”).

## II. GENERAL ISSUES

### a) Environmental law

As the Secretariat notes in its determination, submission SEM-18-003 (*Hydraulic Fracturing in Nuevo León*) revolves around issues relating to environmental impact assessment (EIA), prevention and control of the pollution of water and aquatic ecosystems, adequate management of wastewater discharges from hydraulic fracturing activities, hazardous waste management, and establishment of safety measures and sanctions.

### b) Considerations on the eligibility of the submission under NAAEC Articles 14(1)(c) and (e) and 14(2)(a) as well as Article 5.3 of the Guidelines.

The Secretariat, in its determination of 21 February 2019, found that the revised submission meets the eligibility requirements of NAAEC Article 14(1) and requested a response from the government of Mexico pursuant to Article 14(2).

However, a perusal and analysis of the submission, its appendices, and the Secretariat's determination shows that the submission should not have been allowed because it does not meet the requirement of Article 14(1)(c), the criterion of 14(2)(a), and the provision of Article 5.3 of the Guidelines, which, for greater clarity, are transcribed below:

#### **North American Agreement on Environmental Cooperation**

##### **Article 14. Submissions on Enforcement Matters**

1. The Secretariat may consider a submission from any non-governmental organization or person asserting that a Party is failing to effectively enforce its environmental law, if the Secretariat finds that the submission:...

(c) provides sufficient information to allow the Secretariat to review the submission, including any documentary evidence on which the submission may be based;...

(e) indicates that the matter has been communicated in writing to the relevant authorities of the Party and indicates the Party's response, if any; and...

2. Where the Secretariat determines that a submission meets the criteria set out in paragraph 1, the Secretariat shall determine whether the submission merits requesting a response from the Party. In deciding whether to request a response, the Secretariat shall be guided by whether:

(a) the submission alleges harm to the person or organization making the submission;

**Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation**

5. What criteria must a submission address?

5.3. Submissions must contain a succinct account of the facts on which such an assertion is based and must provide sufficient information to allow the Secretariat to review the submission, including any documentary evidence on which the submission may be based.

It is evident from these legal provisions that, when considering the eligibility of submissions, the Secretariat must ascertain that a submission presents sufficient information and includes evidence in support of the Submitters' assertions. The supporting documents attached to the submission, addressed to the Monterrey Water and Sewer Department (*Dirección de Agua y Drenaje de Monterrey*); the Río Bravo Watershed Agency Branch (*Dirección General del Organismo de Cuenca de Río Bravo–DGOCRB*) of the National Waters Commission (*Comisión Nacional del Agua–Conagua*), and the Semarnat office in the state of Nuevo León, as well as the submission itself, state as follows:

We commissioned a professional water test and it was found that even the water samples that appeared to be clean had high levels of salt and other substances. For this reason, we were told that the water is definitely not potable (attached is a copy of the results). We will not know whether fracking had anything to do with this contamination until more samples are tested.<sup>5</sup>

There is no information to be derived from a perusal and analysis of the described documents in relation to the sampling location, source, or collection and preservation procedure for the sample submitted for water quality testing. Therefore, it cannot be considered valid unless proof is provided that the procedure was conducted in accordance with the provisions of paragraph 7 of Mexican Official Standard (*Norma Oficial Mexicana*) NOM-230-SSA1-2002, *Environmental Health – Water for human use and consumption, sanitary requirements to be met for public and private water supply systems during water management – Sanitary procedures for sampling*.<sup>6</sup> These standards, applicable throughout the nation's territory, regulate the sanitary sampling procedure for water quality testing, which bears a strict relationship to the matter raised by the submission.

This point is emphasized because of the critical importance of sample collection and preservation procedures; to wit, the possibility of determining the causes of contamination and avoiding transportation-related errors is contingent on these procedures. Thus, based on the Submitters' statements, it is not possible

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<sup>5</sup> Article 14 Submission, 21 February 2019 ("Submission"), at 5, online at [http://www.cec.org/sites/default/files/submissions/2016\\_2020/08-rsub\\_public.pdf](http://www.cec.org/sites/default/files/submissions/2016_2020/08-rsub_public.pdf) (viewed March 2020).

<sup>6</sup> Ministry of Health, Mexican Official Standard NOM-230-SSA1-2002, *Environmental Health – Water for human use and consumption – Sanitary requirements to be met by public and private water supply systems during water management – Sanitary procedures for sampling*, 2 July 2005, online at <http://www.salud.gob.mx/unidades/cdi/nom/230ssa102.html> (viewed March 2020).

to correlate the alleged contamination of the water sample submitted for quality testing with the drilling of the “Tangram I” and “Nerita I” wells, located in the municipalities of La China and Los Ramones, Nuevo León, primarily because the wells in question are located 19 and 6 km, respectively, from the community of Hacienda El Carrizo.<sup>7</sup>

Similarly, there is no evidence in the documents provided by the Submitters as to the quality and quantity of water existing prior to the drilling of the “Tangram I” and “Nerita I” wells, since the result associated with the availability and alleged contamination of the water could have been caused by any number of activities taking place in the vicinity or in the community. As stated in the submission itself, the community uses the available water resources for activities relating to ranching and agriculture, which might also have a considerable effect on water quality and quantity in the area.<sup>8</sup>

Finally, pursuant to Article 14(2)(a), the Secretariat must consider, prior to requesting a response from the Party, whether harm is alleged to the person or organization making the submission. It is evident from a perusal and analysis of the submission and its appendices that the Submitters do not demonstrate the impact they suffered as a consequence of the drilling of the “Tangram I” and “Nerita I” wells, since the only allegations of alleged harm consist of increased seismicity in the municipalities of Los Ramones and water scarcity; however, no documents are provided to demonstrate a causal nexus between this harm and any action or omission on the part of PEMEX.

It is true that the authority can assess the question of causality by means of administrative or judicial proceedings, as in the case of the citizen complaint procedure, in which ASEA, by the powers it holds under the law, can gather the evidence necessary to demonstrate the existence of a relationship between the exploratory work done in the “Tangram I” and “Nerita I” wells and these environmental harms. However, as discussed below, there is currently a pending citizen complaint, meaning that sufficient evidence to determine the existence of any action or omission on the part of any authority has yet to be found.

Therefore, it may be concluded that the submission does not meet the requirements of Article 14(1)(c) and (e), the criterion of Article 14(2)(a), and the provision of paragraph 5.3 of the Guidelines, since the Submitters do not provide documentary evidence showing that they applied to the relevant domestic bodies for a finding of environmental responsibility on the part of PEMEX under LFRA Article 10. In short, the Submitters have not demonstrated that the adduced harm has actually had an impact upon them.

### **c) Pending administrative proceedings**

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<sup>7</sup> National Industrial Security and Environmental Protection Agency for the Hydrocarbon Sector, file no. ASEA/UAJ/004/2020, 16 January 2020, at 4.

<sup>8</sup> Submission at 8.

File number [REDACTED] *[Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*, issued by the National Industrial Security and Environmental Protection Agency for the Hydrocarbon Sector (*Agencia Nacional de Seguridad Industrial y de Protección al Medio Ambiente en el Sector de Hidrocarburos–ASEA*), states that [REDACTED] *[Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*, allowed for investigation on [REDACTED] *[Confidential information pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*, the citizen complaint [REDACTED] *[Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*, in relation to the probable environmental impact caused by the drilling of the “Tangram I” and “Nerita I” wells, using the hydraulic fracturing technique, by PEMEX in the community of El Carrizo, municipality of Los Ramones, Nuevo León. **(CONFIDENTIAL APPENDIX 1)**

[REDACTED] *[Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*

Finally, a perusal and analysis of citizen complaint [REDACTED] *[Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*, shows that the facts asserted in regard to alleged environmental impact coincide as to the possible causes and the probably responsible agent. For this reason, the Secretariat is exhorted to terminate this submission process pursuant to NAAEC Article 14(3)(a), since the citizen complaint being heard in file on [REDACTED] *[Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]*, is considered an administrative proceeding in accordance with NAAEC Article 45(3)(a).

### III. ANALYSIS OF THE SECRETARIAT'S DETERMINATION

#### A) Environmental impact assessment

In relation to the alleged violation of LGEEPA Article 28 paragraphs I and XIII, the Submitters contend that “the LGEEPA regulates the constitutional provisions relating to the preservation, protection, and restoration of the ecology”<sup>9</sup> and that “among its objectives are 1) achieving sustainable development; 2) preventing and controlling air, water, and soil pollution; 3) establishing the powers of municipalities, states, and the federation, and 4) establishing the EIA procedure and the criteria that the authorities must observe when assessing projects.”<sup>10</sup>

In this regard, the Secretariat noted that, for the review of this submission, only paragraphs I and XIII of LGEEPA Article 28, plus the second and third unnumbered paragraphs, would be considered, given that the activities addressed in the submission have to do with the petroleum industry and correspond to matters under federal jurisdiction.<sup>11</sup>

For greater clarity, these paragraphs read as follows:

**Article 28.** Environmental impact assessment is the procedure whereby the Ministry establishes the conditions governing the execution of those works and activities that may cause ecological imbalance or exceed the limits and conditions set forth in the applicable provisions for the protection of the environment and the preservation and restoration of ecosystems, with a view to preventing or minimizing the negative effects of such works and activities on the environment. To that end, in those cases determined by the Regulation issued for that purpose, anyone seeking to carry out any of the following works or activities shall require prior environmental impact authorization from the Ministry:

I. Hydraulic works, roads, oil pipelines, gas pipelines, coal pipelines, and multi-use pipelines;...

XIII. Works or activities corresponding to matters under federal jurisdiction that may cause grave and irreparable ecological imbalance or harm to public health or ecosystems, or that may exceed the limits and conditions set out in the legal provisions governing the preservation of ecological balance and the protection of the environment.

On another note, and as the Secretariat observes, the federal government has jurisdiction over EIA in the hydrocarbon sector pursuant to LGEEPA Article 28 paragraphs I and and to Article 5(C) and (D) subparagraphs I, IV, and VI. In the present case, Semarnat, acting through its Environmental Impact and Risk Branch (*Dirección General de Impacto y Riesgo Ambiental–DGIRA*), had responsibility for processing and ruling on the regional modality of the EIS and

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<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

<sup>11</sup> Article 14(I) Determination at par. 19.

the risk study for the Comprehensive Burgos Watershed Project 2004–2022 (*Proyecto Integral Cuenca de Burgos 2004-2022*, the “Project”) submitted by PEMEX on 10 March 2004 and registered under number 28TM2004X0006 (**APPENDIX 2**). On 11 March 2004, pursuant to LGEEPA Article 34 paragraph I, Semarnat published a new entry for the project, submitted to EIA by PEMEX, in its Ecological Gazette and on its portal at <http://www.semarnat.gob.mx/wps/portal>.

For purposes of joint assessment of the project, from 20 [sic: 10] to 15 March 2004, by means of various memoranda, various bodies were requested to assign technical representatives for participation. These bodies included the National Protected Natural Areas Commission (*Comisión Nacional de Áreas Naturales Protegidas–Conanp*), the National Biodiversity Commission (*Comisión Nacional de Biodiversidad–Conabio*), the Environmental Policy and Regional and Sectoral Integration Division (*Dirección de Política Ambiental e Integración Regional y Sectorial–DGPAIRS*), the Forests and Soils Management Branch (*Dirección General de Gestión Forestal y de Suelos–DGGFS*), the Environmental Statistics and Information Branch (*Dirección General de Estadística e Información Ambiental–DGEIA*), and the Air Quality Management Branch (*Dirección General de Gestión de Calidad del Aire–DGGCA*). On 13 April 2004, opinions on the project were solicited from the Tamaulipas State Ministry of Urban Development and Ecology (*Secretaría de Desarrollo Urbano y Ecología*), the Coahuila State Ecology Branch (*Dirección General de Ecología*), and the Nuevo León State Environmental and Natural Resource Protection Agency Branch (*Dirección General de la Agencia de Protección al Ambiente y Recursos Naturales*).

The study area submitted by PEMEX in the EIS is situated in the northern part of the states of Tamaulipas, Nuevo León, and Coahuila, and its boundaries were delimited as follows: It is bounded to the north by the international border with the United States of America, to the east by the coastline, and to the south and west, occupying an area of 40,292.34 km<sup>2</sup>, by the following coordinates:

Point	Longitude (UTM)	Latitude (UTM)
1	387600,1909	3116406,945
2	387592,1687	3111310,856
3	387085,0284	3105750,439
4	388102,2855	3087448,845
5	388101,5238	3081784,845
6	388903,1439	3069334,11
7	389623,1259	3059956,742
8	389629,5708	3054780,031
9	390154,2949	3047699,686
10	391655,4404	3037107,323
11	392174,3356	3032450,928
12	393745,2995	3025134,212
13	396250,7191	3014623,909
14	397249,0206	3011625,519
15	398794,0636	3008531,912

16	399802,4378	3004468,08
17	401538,899	3000991,804
18	404208,7599	2991061,375
19	407545,817	2978587,472
20	410934,1027	2965968,163
21	414954,3463	2950981,62
22	417682,7714	2940823,426
23	419227,2438	2936836,703
24	423676,8392	2928204,679
25	427678,1203	2920513,909
26	429670,0752	2917648,788
27	429774,3208	2917543,374
28	431801,9911	2901280,398
29	433015,3039	2891564,42
30	433368,8872	2875720,574
31	433842,5494	2853932,427
32	434068,5298	2843605,225
33	438938,9077	2828676,238
34	442484,011	2817784,274
35	442703,6087	2817146,846
36	444181,8735	2813988,262
37	446166,6796	2811155,28
38	448655,0285	2808664,658
39	449635,5248	2807941,166
40	450816,4024	2807086,879
41	477188,6293	2790089,931
42	497044,4569	2777305,858
43	526639,1458	2764454,02
44	548777,7886	2754848,497
45	553628,0835	2750693,326
46	554225,6118	2750271,873
47	556501,49	2748679,256
48	559659,8048	2747212,672
49	562997,4313	2746310,318
50	565457,5711	2746194,239
51	568187,3278	2746058,634
52	572786,6528	2745609,769
53	572746,7474	2726798,426
54	572730,0798	2709587,071
55	604991,0512	2709841,535
56	615775,8262	2709917,018

On 28 September 2004, further to the assessment conducted by the DGIRA, the project was declared environmentally viable and the EIS submitted by PEMEX was given conditional approval (**APPENDIX 2**).

Subsequently, further to the creation of the ASEA,<sup>12</sup> in 2015, all hydrocarbon-sector-related proceedings and files were transferred from Semarnat to this new agency. For this reason, in order to be able to issue this party response, the assistance of ASEA was requested; more specifically, the agency was asked to

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<sup>12</sup> The agency was created on 2 March 2015 further to Transitory Article 19 of the Energy Reform, which mandated development of the foundations for the creation of a government agency responsible for regulating and supervising the facilities and activities of the hydrocarbon sector in the areas of industrial safety, operating safety, and environmental protection.

provide any information in its possession relating to the submission. This request was addressed in file no. ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act]. (APPENDIX 3), informing Semarnat of the physical existence of the files relating to the environmental impact approval (*autorización de impacto ambiental*—AIA) for the Project, identified as no. 28TM2004X0006, as well as the corresponding administrative decision, no. S.G.P.A./DGIRA.DEI.2240/04.

The following are some of the annotations contained in this document submitted by ASEA in regard to the Project.

- The location of the wells is as follows:

Well	Location
Tangram-1	Municipality of La China, Nuevo León, 19 kilometers from the community of Hacienda El Carrizo.
Nerita-1	Municipality of Los Ramones, Nuevo León, 6 kilometers from the community of Hacienda El Carrizo.

- The Project approved in 2004 ranged over three states and therefore required assessment under the regional modality of the EIS (EIS-R) and the risk analysis modality of the risk study for the Project.
- According to paragraph II of decision no. S.G.P.A./DGIRA.DEI.2440.04, this approval corresponds to:
  - Development of 13,657 works over the period from 2004 to 2022, consisting of 6,493 wells, 5,897 discharge lines, 230 gas pipelines, 943 production systems (compression and collection stations), and 154 water injection and transfer systems. In addition, an area of 12,541 ha was required for 2D seismic prospecting, and another area of 24,439 ha for 3D seismic prospecting, over the years 2004 to 2011.
- There is no record of the processing of an application to amend the AIA, contained in file no. S.G.P.A./DGIRA.DEI.2440.04, in relation to the Tangram I and Nerita I wells.

A perusal and analysis of the regional modality of the AIA for the Project, as well as the contents of this ASEA document, shows that the competent authority – that is, the DGIRA – effectively complied with its obligation to conduct the relevant EIA as per Article 28 paragraph I in connection with the works or activities comprised by the Project, which include the “Tangram I” and “Nerita I” wells.

Therefore, the Submitters’ assertions concerning the Mexican authorities’ alleged failure to fulfill the obligation to carry out the EIA process are considered unfounded.

## **B) Access to information on the EIS**

The Submitters further assert that they searched for the EIS corresponding to the works described in the submission on the portals and websites but did not find these documents. For this reason, they contend that the activities were carried out without due environmental impact approval (AIA); that the environmental impact of the activities carried out by PEMEX in the community of Hacienda El Carrizo was negative, and that no authority has taken action on this matter to date.<sup>13</sup>

In this regard, we note that, according to file no. ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act], it [the EIS] was sent by ASEA, and that the EIS and the corresponding AIA are public information and can be found at the following links:

<https://apps1.semarnat.gob.mx:8443/dgiraDocs/documentos/tamp/estudios/2004/28TM2004X0006.pdf> and <https://apps1.semarnat.gob.mx:8443/dgiraDocs/documentos/tamp/resolutivos/2004/28TM2004X0006.pdf>. It should also be noted that not only was the information published on the portals of the Semarnat website, but also that it is currently possible for anyone to request any public information they may need from the INAI, which the Submitters did not do in this case.

As to the Submitters' assertion that "neither the government nor PEMEX complied with the public participation requirement of LGEEPA Article 177,"<sup>14</sup> it should be noted that the article governing public consultation is LGEEPA Article 34, which establishes that once an EIS is received, a file must be submitted to be made available to the public, so that anyone can view it. At the request of any person or community, Semarnat may hold a public consultation. The documents in the EIS file show that the Project was published for viewing in the Ecological Gazette and on the Ministry's online platform, to allow for public consultation. The documents also show that no requests for public consultation were received during the EIA process. Therefore, the Party's view is that the Submitters have failed to indicate at what time and in what manner this right was violated.

## **C) Failure to enforce mitigation measures**

The Submitters assert a failure to effectively enforce the environmental law in relation to site restoration and abandonment subsequent to hydraulic fracturing in the community of Hacienda El Carrizo, municipality of Los Ramones, Nuevo León.<sup>15</sup>

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<sup>13</sup> *Ibid.* at 7.

<sup>14</sup> Submission, *op. cit.*

<sup>15</sup> *Ibid.* at 2.

The Submitters assert that Mexico is failing to effectively enforce LFRA Article 10, establishing responsibility for environmental harm and the obligation to repair it, with respect to the water-, soil-, and biodiversity-related environmental harms which, taken together, are causing ecological disequilibrium that is affecting the health and well-being of the residents of the community of Hacienda El Carrizo, municipality of Los Ramones, Nuevo León.<sup>16</sup>

On this point, the Secretariat found that LFRA Article 10 and LGEEPA Article 15 paragraphs II and IV qualify as environmental law, since their primary purpose is the protection of the environment through the imposition of obligations to repair harm and make environmental compensation.

LFRA Article 10 reads as follows:

**Article 10.** Any physical or legal person who, by his act or omission, directly or indirectly causes harm to the environment shall be responsible and obligated to repair the harm, or, where repair is impossible, to make the applicable environmental compensation, as prescribed by this Act. He shall likewise be obligated to take the measures necessary to prevent the harm to the environment from increasing.

On this score, ASEA, in its file no. ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act], found that the records of the National Hydrocarbons Commission (Comisión Nacional de Hidrocarburos–CNH), the “Tangram I” and “Nerita I” wells show no discharge lines or aboveground infrastructure that would give evidence of the wells being used for hydrocarbon extraction. Similarly, PEMEX stated, ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act], that the “Tangram I” and “Nerita I” wells are not covered by any deed of transfer or contract and have not been operating since their cessation of operations in 2013. For this reason, since there are no operations at this time, there are no grounds for the corresponding mitigation measures to have been applied. Nor has there been any proof of environmental harm that would require a remedy in the case at hand.

In addition, the Party considers it important to specify that while the article’s provisions do qualify as environmental law, LFRA is enforced by means of one of the administrative or judicial proceedings contemplated in Article 27 of the same act. This must necessarily be linked to the violation of the legal provisions governing citizen complaints or to some jurisdictional proceeding in which the LFRA must be enforced in order to obtain the relevant environmental reparation or compensation.<sup>17</sup>

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<sup>16</sup> *Ibid.* at 11.

<sup>17</sup> **Article 27.** The persons and institutions legitimated under Article 28 of this Act may sue for a ruling of environmental responsibility and compliance with the obligations, payments, and services set out in this Title, as prescribed by this Act, the Federal Code of Civil Procedure, or in accordance with the federal law governing those judicial proceedings to which Article 17 of the Constitution refers.

For these reasons, the Party's view is that this provision should not be reviewed as part of this submission process, since the proper legal mechanisms that could be applied to seek environmental reparation or compensation have not been exhausted, where these are considered relevant.

**d) LGEEPA Article 170, authorizing Semarnat to apply safety measures**

The Submitters assert that due to the hydraulic fracturing done through the "Tangram I" and "Nerita I" wells, the community of El Carrizo in the municipality of Los Ramones was affected by damage to the aquifers, and the residents of this community experienced damages to the structure of their houses. On these grounds, they assert that Semarnat failed to fulfill its duties as regards the application of safety measures under LGEEPA Article 170.<sup>18</sup> In this regard, the Secretariat noted in its determination that this provision qualifies as environmental law and should be reviewed, since its primary purpose is environmental protection.<sup>19</sup>

The article in question provides that where there exists an imminent risk of ecological disequilibrium or of serious harm to or deterioration of natural resources, or in cases of contamination with dangerous consequences for ecosystems, Semarnat may order the application of various safety measures.

LGEEPA Article 170 reads as follows:

**Article 170.** Where there exists an imminent risk of ecological disequilibrium 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 proper justification, order any of the following safety measures:

**I.** temporary partial or total closing of sources of contamination and of facilities handling or storing specimens, products, or subproducts of wildlife species, forest resources, or carrying on activities that give rise to the conditions to which the first paragraph of this article refers;

**II.** seizure of hazardous materials and wastes as well as specimens, products, or subproducts of wildlife 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

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**Article 30.** The Federal Judicial Branch shall have district courts with special environmental jurisdiction. In the absence thereof, the competent district judges shall have jurisdiction over the judicial proceedings relating to environmental responsibility to which this Title refers.

<sup>18</sup> Submission at 10.

<sup>19</sup> Article 14(1) Determination, at par. 22.

first paragraph of this article. In addition, the Ministry may apply to the competent authority for the application of any safety measure that may be prescribed by other provisions.

On this point, the Party considers it important to note that Article 1 of the National Agency for Industrial Security and Environmental Protection in the Hydrocarbon Sector Act (*Ley de la Agencia Nacional de Seguridad Industrial y de Protección al Medio Ambiente del Sector de Hidrocarburos–ASEA Act*)<sup>20</sup> provides that ASEA is a deconcentrated administrative body of Semarnat, whose powers in relation to hydrocarbon-related safety measures are spelled out in Article 5 paragraph XI of the act, which reads as follows:

**Article 5.** The Agency shall have the following powers:

**XI.** To apply any safety measures, urgent measures, or sanctions that may be applicable under the relevant legislation.

On this basis, the hydrocarbon-related files processed by the Ministry of Energy [*Secretaría de Energía–(Sener)*], the AIAs issued by the DGIRA, and the corresponding inspection and surveillance proceedings carried out by Profepa were transferred to ASEA at its inception. Therefore, based on the agency's duties and powers as set out in the ASEA Act, in file no. ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act], stated that the Industrial Supervision, Inspection, and Surveillance Unit (*Unidad de Supervisión, Inspección y Vigilancia Industrial*), in file no. ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act], stated that:

- A search in the records of Immediate Notices (*Avisos Inmediatos*) and Formalization of Notices (*Formalización de Avisos*), whereby the regulated parties declare the existence of spills, infiltrations, discharges, or dumping of hazardous materials or wastes in quantities greater than 1 m<sup>3</sup>, found no report of environmental incidents related to the Tangram 1 or Nerita 1 wells, nor any record of the occurrence of incidents or accidents connected with the wells, or with any other well in the municipalities of Los Ramones or La China in the state of Nuevo León.
- There is no report to the Supervision Unit (*Unidad de Supervisión*) of operating safety incidents or accidents giving rise to supervision, inspection, or surveillance measures, and the files transferred from Profepa and Sener to ASEA contain no evidence of proceedings brought in regard to alleged environmental impacts or operating safety issues.
- The records of the CNH indicate that these wells lack discharge lines and aboveground infrastructure giving indicating that they are operating, nor are they under any deed of transfer or contract, thus corroborating that the wells are not currently operating.

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<sup>20</sup> Published 11 August 2014.

Similarly, ASEA, in its file no. ASEA/UAJ/0068/2019, noted that due to the absence of records of incident or accident reports linked to the “Tangram I” and “Nerita I” wells, and the absence of reports on the occurrence of operating safety incidents or accidents linked to the wells, there have been no supervision, inspection, or surveillance measures applied to these facilities that might have given rise to administrative proceedings resulting in the application of safety measures (**APPENDIX 3**).<sup>21</sup>

The foregoing considerations lead to the conclusion that the Submitters’ assertion of failure to enforce LGEEPA Article 170 by Semarnat, with respect to the application of safety measures, is without basis, since the application of hydrocarbon-related measures is governed by Article 22 of the ASEA Act, which reads as follows:

**Article 22.** Where any work or facility poses a critical risk in terms of industrial safety, operating safety, or environmental protection, the Agency shall order one or more of the following safety measures:

- I. suspend work relating to the construction of works or facilities;
- II. order a temporary total or partial shutdown of the works, facilities, or systems;
- III. order a temporary suspension of the supply or service;
- IV. seize substances, materials, equipment, accessories, ducts, facilities, systems, or vehicles of any kind, and
- V. remove substances, materials, equipment, or accessories from use.

Where it exercises any of the safety measures set out in this article, the Agency shall immediately give notice thereof, for the relevant purposes, to the authority that issued the corresponding permits or approvals.

In light of the above attributed to ASEA in Article 5 paragraph XI of ASEA Act it is the [Party’s] view that the Submitters’ assertion is without basis since, as stated above, ASEA has no record of any administrative proceeding against PEMEX in which safety measures were ordered. Consequently, the [Party’s] view is that there is no evidence to suggest that the Mexican authorities failed to enforce the obligation to apply safety measures with relation to any risk or harm that may have been caused to the environment during the exploratory phase of operation of the “Tangram I” and “Nerita I” wells.

#### **e) Water quality**

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<sup>21</sup> National Industrial Security and Environmental Protection Agency for the Hydrocarbon Sector, file no. ASEA/UAJ/0068/2019, at 8–9 (10 June 2019).

- **LGEEPA Article 88 paragraph III on sustainable water use**

The Submitters assert a failure of effective enforcement in connection with the matters governed by LGEEPA Article 88; to wit, they have learned that the hydraulic fracturing process requires millions of liters of water, exceeding the capacity of the local aquifers. They add that since 2014, the community of Hacienda El Carrizo, in the municipality of Los Ramones, has begun to experience water scarcity and pollution. The Submitters note that these phenomena have occurred after the hydraulic fracturing wells were drilled.<sup>22</sup>

In this regard, the Secretariat found that LGEEPA Article 88 paragraph III, in addition to qualifying as environmental law, relates to the Submitters' assertions on the carrying capacity of the aquifers. It also found that this provision is reviewed in the light of the other provisions relating to sustainable water use cited in the submission; specifically, LGEEPA Article 122 and Articles 8, 16, and 18 of the Contamination Prevention Guidelines.<sup>23</sup>

LGEEPA Article 88 paragraph III reads as follows:

**Article 88.** For the sustainable use of water and aquatic ecosystems, the following criteria shall be considered:

III. To maintain the integrity and equilibrium of the natural elements involved in the water cycle, the protection of soils and wooded or forested areas and the maintenance of basic flows in watercourses shall be considered, along with the recharge capacity of aquifers.

On this point, it is important to specify that pursuant to Article 9 of the National Waters Act (*Ley de Aguas Nacionales*—LAN) Conagua is the national body responsible for regulating and managing water resources under federal jurisdiction. For this reason, in order to issue this Party Response, its support was solicited for information about concessions granted to PEMEX for the use, enjoyment, and exploitation of national waters for the operation of the “Tangram I” and “Nerita I” wells.

Conagua, in its file no. BOO.06.01.211 (**APPENDIX 4**), stated that in regard to concessions for the use, enjoyment, and exploitation of national waters, these would be authorized only where required during the hydrocarbon extraction phase, as prescribed by the Act.

According to the information provided by ASEA in its files ■ [Confidential information withheld pursuant to Article 113 paragraph XI of the Mexican Transparency and Access to Information Act], and ASEA/UAJ/0068/2019, it is evident from the public information available from the CNH, and from the report produced by PEMEX as instructed by ASEA in order to respond to the Submitters' citizen complaint, that the “Tangram I” and “Nerita I” wells are not

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<sup>22</sup> Submission at 8.

<sup>23</sup> Article 14(1) Determination, at par. 20.

currently operating, lack aboveground infrastructure indicating that they have been operating, and are not covered by any deed of transfer or contract under any of the existing modalities.

It follows that, since these wells are not in the hydrocarbon extraction phase, there has been no obligation for them to be granted concessions by Conagua for use, enjoyment, and exploitation of national waters. These considerations show that there can be no presumption of a failure to effectively enforce Article 88 paragraph III with respect to the protection of soils and wooded or forested areas, watercourses, and aquifer recharge.

#### **f) LGEEPA Article 122, applicable to wastewater control**

In the context of this submission process, the Secretariat found that LGEEPA Article 122 qualifies as environmental law,<sup>24</sup> and it relates to the Submitters' assertions concerning the failure to prevent contamination of the receiving bodies into which wastewater was dumped.

LGEEPA Article 122 reads as follows:

**ARTICLE 122.** Wastewater arising from urban public uses or from industrial or agricultural uses that is discharged into the drainage and sewer systems of localities or into watersheds, rivers, riverbeds, reservoirs or other bodies of water or watercourses, as well as waters allowed to infiltrate into the subsoil by any means, and in general waters spilled onto soils, must meet the conditions necessary to prevent:

- I. contamination of the receiving bodies;
- II. Interference with water treatment processes, and
- III. Disruptions, impediments or alterations to the proper use or adequate operation of systems, or to the hydraulic capacity of watersheds, watercourses, reservoirs, water tables or other national bodies of water or sewer systems.

In this regard, the Public Registry of Water Rights Office (*Gerencia del Registro Público de Derechos de Agua*) of the Water Administration Division (*Subdirección General de Administración del Agua*) of Conagua, in its file no. BOO.2.02-2362 of 2 December 2019, reported that a search in the database of the Public Registry of Water Rights found no wastewater discharge permits issued for the municipalities of Los Ramones or La China in the state of Nuevo León in connection with alleged hydraulic fracturing in the “Tangram I” and “Nerita I” wells (**APPENDIX 4**).

Likewise, ASEA, in its file no. ASEA/UAJ/0068/2019 of 10 June 2019 (**APPENDIX 3**), in relation to the Submitters' assertions concerning failures to enforce LGEEPA

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<sup>24</sup> *Ibid.*, at par. 21.

Article 122 in connection with wastewater disposal resulting from the drilling of the “Tangram I” and “Nerita I” wells, noted that:

- The EIS filed by PEMEX Exploración y Producción and the corresponding decision, S.G.P.A./DGIRA.DEI.2440.04, established the need for equipment to collect and channel the resulting wastewater and to have safety measures to prevent wastewater dispersal, with no plan for wastewater to be discharged into geological formations through wastewater wells.
- In addition, it states that the DGIRA, in the corresponding AIA, placed a restriction on the dumping of produced water<sup>25</sup> into natural watercourses, beds, or national property where wastewater is discharged, or onto land where it could seep into and contaminate soil or aquifers.

Furthermore, in the file in question, ASEA states that according to public information from the CNH, there is no record of the existence of wastewater wells in the municipality of Los Ramones, Nuevo León, and it therefore adds that there is no indication that produced water resulting from the drilling of the “Tangram I” and “Nerita I” wells was discharged in this municipality.

In view of the foregoing, the Party’s view is that the competent domestic authorities did not fail to effectively enforce LGEEPA Article 122, since the treatment of wastewater and produced water was subject to collection and channeling for final disposal, these being non-reusable byproducts.

**g) Article 91 of the LGPGIR Regulation, requiring wastewater to be discharged into geologically stable formations**

Concerning Article 91 of the LGPGIR Regulation, which provides that hazardous waste disposal or final disposal may take place in controlled confinement (paragraph I) or by being confined in geologically stable formations (paragraph II), the Secretariat found paragraph II of this article to be eligible for review, since in addition to qualifying as environmental law, it relates to the Submitters’ assertion relating to the alleged dumping of wastewater from the hydraulic fracturing process into geological formations.<sup>26</sup>

Article 91 paragraph I [sic: II] reads as follows:

**Article 91.** The final disposal of hazardous waste may take place by means of:

**II.** confinement in geologically stable formations.

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<sup>25</sup> Mexican Official Standard NOM-143-Semarnat-2003, *Establishing environmental specifications for the management of produced water associated with hydrocarbons* (online at <http://biblioteca.semarnat.gob.mx/janium/Documentos/Ciga/agenda/PPD02/DO561.pdf>), defines produced water as “water associated with the hydrocarbon in the deposit that rises to the surface during the extraction thereof; contains salts and may contain metals, and is considered an unusable byproduct.”

<sup>26</sup> Article 14(1) Determination, at par. 25.

In this regard, it is important to specify that while this provision does qualify as environmental law, hydrocarbon-associated water arising during the extraction process is not classified as hazardous waste but as produced water pursuant to Mexican Official Standard NOM-143-Semarnat-2003, *Establishing the environmental specifications for the management of produced water associated with hydrocarbons*.

This being the case, the provisions of LGPGIR Article 91 paragraph I [sic: II] do not apply to the matters raised in this submission process. Furthermore, and as noted above, in the municipality of Los Ramones, condition no. 3 of administrative decision S.G.P.A./DGIRA.DEI.2440.04 expressly provides for temporary storage of any hazardous waste generated for final disposal in authorized confinement centers, and that such waste could not be dumped on soil, into bodies of water, or onto vegetation. In addition, the decision was made conditional on the presence of equipment for collecting and channeling the resulting wastewater, with no implication that wastewater was to be discharged into geological formations through wastewater wells.

**h) Articles 8, 16 and 18 of the Contamination Prevention Guidelines, applicable to the prevention of subsoil and aquifer contamination**

The Secretariat found that Articles 8, 16 and 18 of the Contamination Prevention Guidelines qualify as environmental law, since their primary purpose is the protection of the environment through provisions for the preservation of water quality.<sup>27</sup>

However, these guidelines were issued on 30 August 2017 and took effect on the day after their publication;<sup>28</sup> that is, four years after the conclusion of the exploration phase of the “Tangram” and “Nerita I” wells.

Under Article 14 of the Mexican Constitution, the Mexican authorities may not give retroactive effect to legal provisions with prejudice to regulated parties. Therefore, the Party’s view is that these provisions are not applicable to the exploration processes. As to the extraction phase, according to the information provided by ASEA and PEMEX Exploración y Producción, the “Nerita I” and “Tangram I” wells have not been operating since 2013.

In sum, given these considerations, the Party’s view is that Articles 8, 16 and 18 of the Contamination Prevention Guidelines, applicable to the prevention of subsoil and aquifer contamination, should not form a part of this submission process.

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<sup>27</sup> *Ibid.*, at par. 28.

<sup>28</sup> Official Gazette of the Federation, Guidelines applicable to the prevention of subsoil and aquifer contamination, online at [http://www.dof.gob.mx/nota\\_detalle.php?codigo=3D5495543%26fecha=3D30/08/2017](http://www.dof.gob.mx/nota_detalle.php?codigo=3D5495543%26fecha=3D30/08/2017).

## IV. CONCLUSIONS

The submission should not have been allowed for review, since it meets neither the requirement of Article 14(1)(c), the criterion of Article 14(2)(a), nor the provision of Article 5.3 of the Guidelines. The matters raised in the submission are currently the subject of a citizen complaint filed by the Submitters with ASEA, and this administrative proceeding is indeed the proper way to ascertain the existence of any environmental harm in connection with the exploration activities that took place in the “Tangram I” and “Nerita I” wells, located in the municipalities of La China and Los Ramones, Nuevo León.

The Submitters have not demonstrated that the alleged harm associated with water availability and contamination is related to the exploratory work done in the “Tangram I” and “Nerita I” wells. In particular, there is no evidence of the status of water quality and availability in this area prior to the drilling of the “Tangram I” and “Nerita I” wells, nor that this drilling has affected water quantity and quality. There is a range of activities taking place in the community that could also have considerably affected the region’s water resources.

There was no violation of LGEEPA Article 28 paragraphs I and XIII, establishing the obligation to file an EIS prior to the approval of a project. This is because the competent authority of the day – the DGIRA – complied with the obligation to conduct the applicable EIA for the works or activities contemplated as part of the Project.

Nor was there any violation of LFRA Article 10 or LGEEPA Articles 15 paragraphs II and IV and 170, since there is no record of any administrative proceeding against PEMEX that gave rise to the application of safety measures. Therefore, the Party’s view is that there is no evidence to suggest that the Mexican authorities failed in their obligation to apply safety measures with relation to any risk or harm that may have been caused to the environment during the exploration process in the “Tangram I” and “Nerita I” wells.

Likewise, it has not demonstrated that there was any violation of LGEEPA Article 88 paragraph III, since the “Tangram I” and “Nerita I” wells currently lack any aboveground infrastructure to indicate that they could have been operating, nor is there any evidence that the wells could have been under any deed of transfer or contract in accordance with the existing modalities. Therefore, the Party’s view is that, since these wells are not in the hydrocarbon extraction phase, there was no requirement for Conagua to issue the corresponding concession for the use, enjoyment, and exploitation of national waters.

Similarly, there was no violation of LGEEPA Article 122 or Article 91 of the LGPGIR Regulation, which require wastewater to be discharged into geologically stable formations, since according to the public information available from the CNH, there is no record of the existence of wastewater wells in the municipality of Los Ramones, Nuevo León. Thus, there is no indication that produced water

resulting from the drilling of the wells was discharged in this municipality. In addition, and as demonstrated, the treatment of wastewater and produced water was subject to collection and transportation for final disposal, these being non-reusable byproducts.

Finally, Articles 16 and 18 of the Contamination Prevention Guidelines, applicable to the prevention of subsoil and aquifer contamination, were not violated, since these guidelines were issued on 30 August 2017 and took effect on the day after their publication; that is, four years after the conclusion of the exploration phase of the “Tangram” and “Nerita I” wells. Therefore, these cannot be applied retroactively, since according to the information provided by ASEA and PEMEX Exploración and Producción, the “Nerita I” and “Tangram I” wells were closed in 2013 and have not been in operation since then.