

**Secretariat of the Commission for Environmental Cooperation**

**Secretariat Notification pursuant to Article 15(1) that  
preparation of a factual record is warranted**

**Submitter:** Name confidential pursuant to NAAEC Article 8(11)  
**Party:** United Mexican States  
**Date of receipt:** 22 January 2016  
**Date of the notification:** 27 February 2017  
**Submission no.:** **SEM-16-001** (*Agricultural Waste Burning in Sonora*)

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**I. INTRODUCTION**

1. Articles 14 and 15 of the North American Agreement on Environmental Cooperation (“NAAEC” or the “Agreement”) provide for a process allowing any nongovernmental organization or person 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”)<sup>1</sup> initially considers submissions to determine whether they meet the requirements in NAAEC Article 14(1). When 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 Party and in accordance with the NAAEC, the Secretariat determines whether the matter warrants the preparation of a factual record. If it so determines, it then notifies the CEC Council and explains the reasoning for its recommendation in adherence with Article 15(1); should the Secretariat determine instead that the preparation of a factual record is not warranted, it shall proceed no further with the submission.<sup>2</sup>
2. On 22 January 2016, a person who requested that his name be kept confidential pursuant to NAAEC Article 8(11) (the “Submitter”) filed an NAAEC Article 14(1) submission with the Secretariat. The Submitter asserts that approximately 100 ton of asparagus crop residues generated on some 13,000 hectares of cropland near the municipality of Caborca, Sonora (“the municipality of Caborca” or “Caborca”) are burned each year.<sup>3</sup> The Submitter contends that the burning violates the provisions of the Environmental Protection Bylaw (*Reglamento de Equilibrio Ecológico y Protección al Medio Ambiente—REEPMA*) for the municipality of Caborca, as well as Mexican Official Standard NOM-015-SEMARNAT/SAGARPA-2007,

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<sup>1</sup> The Commission for Environmental Cooperation (CEC) was established in 1994 under the North American Agreement on Environmental Cooperation (NAAEC), signed by Canada, Mexico, and the United States (the “Parties”) and published in the Official Gazette of the Federation (*Diario Oficial de la Federación—DOF*) on 21 December 1993. The constituent bodies of the CEC are the Council, the Secretariat, and the Joint Public Advisory Committee.

<sup>2</sup> For detailed information on the various stages of the submission process, as well as on the Secretariat’s determinations and factual records, visit the submissions on enforcement matters page of the CEC website at <[www.cec.org/submissions](http://www.cec.org/submissions)>.

<sup>3</sup> SEM-16-001 (*Agricultural Waste Burning in Sonora*), NAAEC Article 14(1) Submission (22 January 2016), available at <<https://goo.gl/AkDdks>> [Original Submission].

*Establishing the technical specifications for the use of fire on forested and agricultural land* (NOM-015).<sup>4</sup>

3. On 2 March 2016, the Secretariat found that submission SEM-16-001 (*Agricultural Waste Burning in Sonora*) did not meet the eligibility requirements of Article 14(1) of the Agreement and, based on paragraph 6.2 of the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation* (the “Guidelines”),<sup>5</sup> notified the Submitter that he had 60 working days in which to file a submission meeting all the NAAEC Article 14(1) requirements.<sup>6</sup>
4. On 29 April 2016, the Submitter filed a revised submission with the Secretariat, corrected his assertions and presenting additional information in response to the Secretariat’s observations.<sup>7</sup> The revised submission includes additional information on the environmental law cited in the original submission, correspondence with the authorities concerning the matter, and a succinct account of the facts.
5. In the revised submission, the Submitter asserts that the municipal authority is failing to conduct air quality monitoring ;<sup>8</sup> that open-air burning of asparagus crop residues in the municipality is having a negative impact on air quality;<sup>9</sup> that the municipal authorities are failing to take the measures necessary to prevent and control air-pollution related environmental contingencies;<sup>10</sup> that no open-air burning permits have been issued;<sup>11</sup> that the burning should be prohibited because it is causing human health harms;<sup>12</sup> that the specifications of NOM-015 are not being applied,<sup>13</sup> and that the schedule established for crop residue burning is not being observed.<sup>14</sup>

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<sup>4</sup> Mexican Official Standard NOM-015-SEMARNAT/SAGARPA-2007, *Establishing the technical specifications for the use of fire on forested and agricultural land*, published in the DOF on 16 January 2009 [NOM-015].

<sup>5</sup> *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation*, online at <[www.cec.org/Guidelines](http://www.cec.org/Guidelines)> (viewed 2 November 2015) [Guidelines].

<sup>6</sup> SEM-16-001 (*Agricultural Waste Burning in Sonora*), Article 14(1) Determination (2 March 2016), available at <<https://goo.gl/8XabX9>> [Article 14(1) Determination].

<sup>7</sup> SEM-16-001 (*Agricultural Waste Burning in Sonora*), NAAEC Article 14(1) Submission (29 April 2016), available at <<https://goo.gl/fJfSaJ>> [Revised Submission].

<sup>8</sup> Revised Submission at 1: “it is an air quality-related obligation of the municipality and the growers, yet they are failing to measure air quality (arts. 144, 146, and 172), and for this reason it is impossible to know the extent to which the maximum permissible limits are being exceeded.”

<sup>9</sup> *Ibid.* at 1: “Open-air burning (art. 151), which mentions the prohibition on open-air burning, which may cause environmental instability or impact on air quality, *as is in fact occurring*” (emphasis added).

<sup>10</sup> *Ibid.* at 1: “The measures necessary to prevent and control air pollution (art. 167) are lacking, since, as this article provides, the Department [and other entities] must take the measures necessary to prevent and control environmental contingencies affecting the population.”

<sup>11</sup> *Ibid.* at 1: “when we requested the permits for 2015 and prior years, to ascertain whether they were complying with the standard, I was informed, in these words, that no applications for such permits had ever been made.”

<sup>12</sup> *Ibid.* at 2: “This burning should be prohibited (art. 170) since, as we mentioned ... much of the population complains of burning eyes, scratchy throat, headache, etc., for many days during the burning season.”

<sup>13</sup> *Ibid.* at 2: “I am attaching NOM-015 ... the document on which they base their statements and their actions as they continue with the indiscriminate burning ... violating the precepts thereof.”

<sup>14</sup> *Ibid.* at 2: “in points 2.4.3 [of NOM-015-SEMARNAT/SAGARPA-2007] in relation to the schedule, since it is not being observed.”

6. On 13 June 2016, the Secretariat found that revised submission SEM-16-001 (*Agricultural Waste Burning in Sonora*) meets the eligibility requirements of Article 14(1) and requested a response from the government of Mexico in accordance with the criteria of Article 14(2).<sup>15</sup>
7. On 5 September 2016, the Secretariat received Mexico's NAAEC Article 14(3) response.<sup>16</sup> Having reviewed the revised submission in the light of Mexico's response, the Secretariat finds that submission SEM-16-001 (*Agricultural Waste Burning in Sonora*) warrants the preparation of a factual record, with respect to enforcement of provisions of REEPMA—a municipal regulation—for the reasons set out below.

## II. ANALYSIS

8. Mexico's response addresses the assertions concerning air quality monitoring; emissions of pollutants during crop residue burning; the taking of measures to prevent and control air-pollution related environmental contingencies; the granting of permits for crop residue burning; the alleged harm to public health caused by open-air burning; the enforcement of REEPMA provisions, and the application of NOM-015.
9. The Secretariat proceeds to consider whether, in the light of the response, the Submitter's assertions warrant the preparation of a factual record.
10. REEPMA was published in the *Official Gazette of the State of Sonora* on 17 February 2014 by the Municipal President of the municipality of Caborca, Sonora. It is thus a regulation of the municipal sphere and, according to the First Transitory Article, REEPMA entered into force on 18 February 2014. With respect to NOM-015, establishes specifications for using fire on forest and agricultural lands in order to prevent forest fires.

### A Enforcement of air quality monitoring provisions and the corresponding action measures

11. The Submitter asserts that asparagus crop residues are being burned in the municipality of Caborca without it being possible to ascertain "the extent to which maximum permissible limits for air quality are being exceeded." The Submitter asserts that the municipality of Caborca is failing to effectively enforce REEPMA Articles 144, 146, and 172, establishing air pollution prevention and control criteria; that it is failing to exercise the relevant powers of the Urban Development and Environment Department (*Dirección de Desarrollo Urbano y Ecología—DDUE*) of the Municipality of Caborca, and that the latter's obligation to establish and operate air quality monitoring systems is not being fulfilled.<sup>17</sup>
12. In this regard, Mexico notes that the municipality of Caborca lacks air quality monitoring systems and that it is therefore impossible to determine the quantity and type of pollutants emitted during the period of open-air burning. It further contends that the municipality intends to "cost out equipment of that nature and seek the funding necessary to purchase it."<sup>18</sup>

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<sup>15</sup> SEM-16-001 (*Agricultural Waste Burning in Sonora*) Article 14(1)(2) Determination (13 June 2016), online at <<https://goo.gl/K76NDd>> (viewed 5 December 2016).

<sup>16</sup> SEM-16-001 (*Agricultural Waste Burning in Sonora*), Article 14(3) Response (5 September 2016), available at <<https://goo.gl/BdFxD1>> [Response].

<sup>17</sup> Revised Submission at 1.

<sup>18</sup> Response at 4.

13. The Party notes that in the absence of such air quality monitoring systems, the municipal authorities adopted as a principal measure various commitments on the part of the asparagus growers, which are set down in the minutes of a meeting held between municipal government officials and farmers in Caborca with the goal of “implementing the controlled asparagus burning scheme with reference to [NOM-015]” (hereinafter, the “Meeting Minutes”).<sup>19</sup>
14. Mexico contends that the activities set out in the Meeting Minutes have been ongoing for six years and that these activities take place between December and January of each year.<sup>20</sup> From the information provided by Mexico in the response, the activities — agreed upon between the authorities and the growers — include prior consent for inspector access; determination of burning areas; specifications as to the burning schedule; an agreement on monetary contributions per hectare burned, and the power of the municipality of Caborca to impose sanctions.<sup>21</sup> Mexico contends that the Meeting Minutes constitute the principal enforcement mechanism for the environmental law in question.<sup>22</sup>

**1) REEPMA Article 144**

15. Mexico informed the Secretariat that in accordance with the Meeting Minutes, measures have been taken to monitor, control, and verify emissions from the burning of crop residues, that these emissions were found to be “within the acceptable range for the parameters established by REEPMA Article 144 paragraph I,” and that pollutant emissions have been controlled in accordance with REEPMA Article 144 paragraphs II and III.<sup>23</sup>
16. REEPMA Article 144 provides as follows:
  - Article 144. For the prevention and control of air pollution, the following criteria shall be considered:
    - I. air quality shall be satisfactory in all human settlements and all areas of the municipality;
    - II. air pollutant emissions, whether from artificial or natural sources, and whether from fixed or mobile sources, shall be controlled in order to guarantee air quality that is satisfactory for the well-being of the population and for ecological stability;
    - III. protecting air quality is the responsibility of the municipality and of society at large;
    - IV. programs concerning reforestation, verification of pollutant emissions, development of clean technologies compliant with environmental criteria, and soil protection shall be contemplated with a view to achieving environmental efficiency, so as to preserve the integrity and stability of the components of the atmosphere, and
    - V. the preservation and sustainable use of the atmosphere is the joint responsibility of the authorities and the citizens.

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<sup>19</sup> Response, Appendix A: Office of the Municipal President of Caborca, Sonora, et al., *Minutes of the working meeting to establish the ordinance regulating the controlled burning of asparagus in the Caborca region, 2015–16 season* (24 November 2015) [Meeting Minutes].

<sup>20</sup> Response at 4.

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*

<sup>23</sup> *Ibid.* at 4–5.

17. The Meeting Minutes provide neither technical data nor monitoring measures to determine satisfactory pollution levels in accordance with REEPMA Article 144 paragraphs I, II, and III. The response mentions that the municipality “does not have devices and air quality monitoring technology”.<sup>24</sup> The Meeting Minutes contain the comments of the public officials who attended the meeting on actions and results relating to the burning of asparagus crop residues, but do not provide supporting information.
18. Concerning the inspections of asparagus burning mentioned in the Meeting Minutes,<sup>25</sup> the response does not inform on any control measures.
19. A factual record could present information on how the municipal authorities fulfilled the criteria established by REEPMA Article 144 and described by the Meeting Minutes. In addition, a factual record may include available information on the air quality situation, the use of cleaner technologies for crop residue burning and the impact that the use and protection of soil as a natural resource would have on air quality.

**2) REEPMA Article 146**

20. REEPMA Article 146 provides as follows:

Article 146. The Department shall have the following responsibilities, within the scope of its jurisdiction:

I. to control air pollution on municipal property, as well as from fixed sources under municipal jurisdiction that function as industrial, commercial, or service establishments;

II. to apply the general criteria established by this Bylaw for the protection of the atmosphere, in municipal urban development plans;

III. to require the parties responsible for the operation of fixed sources under municipal jurisdiction to refrain from exceeding the maximum permissible limits for pollutant emissions, in accordance with the applicable Mexican Official Standards, state environmental standards, and other environmental criteria or guidelines established in this Bylaw;

IV. to establish and operate air quality monitoring systems, using technological devices meeting Mexican Official Standards and state environmental standards for this purpose;

V. to produce environmental monitoring reports and keep them up to date;

VI. to formulate and apply air quality management programs based on Mexican Official Standards and state environmental standards in order to establish environmental quality on the territory of the municipality;

VII. to arrange with the parties responsible for the operation of pollution sources the application of new environmentally compatible or efficient technologies, with a view to reducing or eliminating their air emissions, and

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<sup>24</sup> *Ibid*, at 6

<sup>25</sup> For example, in relation to the effect of the burning of asparagus crop residues, it is asserted that “a study was conducted to analyze the effect of burning asparagus plants on the harvest season and yield.” Moreover, as regards “whether the smoke from the burning of asparagus is becoming a risk factor for respiratory disease ... no significant evidence was found.” Meeting Minutes at 2.

VIII. to exercise any other powers vested in them by other applicable provisions.

21. Concerning the exercise of powers by the DDUE, Mexico states that the “competent authorities have, through the [Meeting Minutes] ... taken measures to control and monitor air pollution in property and areas under municipal jurisdiction.”<sup>26</sup> The response leaves central open questions on how these air quality control and monitoring measures are being implemented with respect to REEPMA Article 146. A factual record could examine the measures taken by the municipality of Caborca through the DDUE to control air pollution caused by the burning of crop residues.

**3) REEPMA Article 172**

22. REEPMA Article 172 provides as follows:

Article 172. The Department shall establish and operate air quality monitoring systems with a view to evaluating the ambient air quality of population centres in accordance with the parameters set out in the applicable Mexican Official Standards, with the technical support of the environmental authorities and the academic or research institutions, and shall deliver the local air quality monitoring reports to these entities for incorporation into the National Environmental Information System in accordance with the applicable coordination agreements.

23. With respect to enforcement of REEPMA Article 172 that requires to establish and operate “air quality monitoring systems with a view to evaluating the ambient air quality of population centres”<sup>27</sup> Mexico responds that this has not been possible because of the limited resources available to the municipal public administration and that it decided to take different air pollution control measures by exercising its discretion to address the problem caused by asparagus crop residue burning “in the least costly and most effective manner possible.”
24. Mexico’s view is that the effect of NAAEC Article 45(1)(b) is to make it so that the absence of the systems mentioned is not to be considered a failure to effectively enforce the environmental law, since this failure results from “*bona fide* decisions to assign the resources necessary to enforce the law to other environmental matters considered to have higher priority.”<sup>28</sup>
25. NAAEC Article 45(1)(b) stipulates as follows:
1. For purposes of this Agreement:  
A Party has not failed to “effectively enforce its environmental law” or to comply with Article 5(1) in a particular case where the action or inaction in question by agencies or officials of that Party:...
  - (b) results from *bona fide* decisions to allocate resources to enforcement in respect of other environmental matters determined to have higher priorities;
26. In addition, paragraph 9.5 of the Guidelines provides that where a Party informs the Secretariat that the relevant action or inaction does not constitute a failure to enforce:  
the Secretariat is to consider whether the Party has included sufficient information. If the Secretariat considers that the Party response does not provide sufficient

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<sup>26</sup> Response at 4.

<sup>27</sup> REEPMA Article 172.

<sup>28</sup> Response at 4.

information, the Secretariat may determine that the submission warrants the development of a factual record with respect to the relevant matter(s).

27. Pursuant to paragraph 9.5 of the Guidelines the Secretariat thus considers whether the Party provides sufficient information in the response.<sup>29</sup>
28. Mexico notes that the municipality lacks a monitoring instrument and the technology necessary for these effects, but that Caborca has plans to “cost out equipment of that nature” and that it is seeking the funding necessary to purchase it.<sup>30</sup> The response does not discuss enforcement of “other environmental matters determined to have higher priorities” as provided in NAAEC, such as other matters addressed under the law in question or other environmental priorities under Caborca’s jurisdiction, nor does state the reason why air quality monitoring is not a municipal priority, given the burning of crop residues on 315 hectares between December and January of each year.<sup>31</sup>
29. As to the reasons for the *bona fide* decisions, the Party reports that the municipality of Caborca has sought to use its resources “effectively and rationally” and that it is therefore carrying out the tasks listed in the Meeting Minutes with the farmers in the municipality, thus preserving the “authorities’ right to solve environmental problems in the least costly and most effective manner possible.”<sup>32</sup> Nevertheless, no factual information is attached to the response on measures different from those prescribed by REEPMA Article 172 are being implemented.
30. In light of the foregoing and guided by paragraph 9.5 of the Guidelines, the Secretariat finds that a factual record would help answer central questions relating to the effective implementation of REEPMA Article 172 in Sonora and can present air quality information for the municipality of Caborca and the measures it has taken regarding the burning of agricultural waste. .

### **B Measures necessary to prevent and control air pollution-related environmental contingencies**

31. The Submitter asserts that REEPMA Article 167<sup>33</sup> gives the DDUE the power to take the measures necessary to prevent and control air pollution-related environmental contingencies that affect the public. The Submitter contends that because these measures are not being implemented during the crop residue burning season, air quality standards are —the Submitter asserts— “very frequently” exceeded.<sup>34</sup>
32. REEPMA Article 167 provides as follows:

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<sup>29</sup> See SEM-99-002 (*Migratory Birds*), Article 15(1) Determination (15 December 2000), available at <<https://goo.gl/AB7lzq>> .

<sup>30</sup> Response at 4.

<sup>31</sup> The controlled burning program states that the maximum daily amount of asparagus burning permitted in the municipality of Caborca is 3.5% of the total area of 9000 hectares under the crop, or 315 hectares.

<sup>32</sup> Response at 4.

<sup>33</sup> REEPMA Article 167:

The Municipal Council, acting by the Department and in coordination with the Municipal Civil Protection Unit, shall take the measures necessary to prevent and control air pollution-related environmental contingencies for an area of the municipality and/or for its whole population, where air quality values are outside the acceptable range for the parameters established by the Mexican Official Standards (emphasis added).

<sup>34</sup> Revised Submission at 1.

Article 167. The Municipal Council, acting by the Department and in coordination with the Municipal Civil Protección Unit, shall take the measures necessary to prevent and control air pollution-related environmental contingencies for an area and/or for the whole population of the municipality where the air quality parameters established by the Mexican Official Standards are exceeded.

33. Mexico argues that the competent authorities of the municipality of Caborca adopted the following measures with a view to observing the provision mentioned by the Submitter:<sup>35</sup>
- Adoption of the Meeting Minutes proposed by the local phytosanitary committee (*junta de sanidad vegetal*).
  - Monitoring of the burning carried out as agreed in the Meeting Minutes.
  - Work meetings between the Office of the Sonora State Environmental Attorney (*Procuraduría Ambiental del Estado de Sonora—Proaes*) and the municipal president of Caborca, with the secretary of the Municipal Council, and with the environmental affairs coordinator of Caborca, with a view to reaching agreements on open-air burning in the municipality for the 2016–17 season.
  - Convening a meeting with the farmers in the municipality “to propose research with the goal of improving burning practices so as to minimize the pollution generated by burning, as well as for the implementation of new final disposal practices for waste deriving from the asparagus crop.”<sup>36</sup>
34. On air pollution control-related environmental contingencies, the Party notes that on 2 January 2016 “there was a contingency due to non-compliance with the program”.<sup>37</sup> The response does not provide information on imposed sanctions or their compliance.
35. REEPMA Article 167 establishes the obligation to take measures to prevent air pollution environmental contingencies and to control them when they occur. However, the response contains no data serving to inform the public of the outcome of air quality-related measures taken in the municipality.
36. A factual record can provide information on actions taken by the DDUE to prevent and control air pollution-related environmental contingencies. A factual record can serve to present available information on possible preventive measures to be implemented in order to keep air quality at acceptable levels.

### **C Pollutant emissions in excess of maximum permissible levels**

37. The Submitter asserts that REEPMA Article 151 prohibits open-air burning where it may have an impact on air quality and cause environmental instability, and that these things occur—the Submitter asserts— during crop residue burning.<sup>38</sup>
38. REEPMA Article 151 provides as follows:

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<sup>35</sup> Response at 8: “the measures described in this Part [the Program, monitoring of burning under the Program, and working meetings held between Proaes and the municipal authorities] are implemented pursuant to REEPMA Article 151, with a view to ensuring that the burning of asparagus vegetation does not create an environmental risk, with an attempt to minimize the impacts on air quality.”

<sup>36</sup> *Ibid.* at 7–8.

<sup>37</sup> *Ibid.* at 9.

<sup>38</sup> Revised Submission at 1.



Article 151. The open-air burning of urban solid waste is prohibited, as is that of the vegetation resulting from the clearing, felling, or removal of vegetation from any land, for the purposes of construction or for any other purpose. The municipality may only issue approvals where the burning does not create an environmental risk or impact on air quality and is justified on applicable grounds, in the opinion of the competent authorities. The incineration of any waste by controlled methods, with the exception of such waste as is considered hazardous under the General Act or other federal legislation, shall remain subject to the emissions provisions of the State Act.

39. The Secretariat notes that REEPMA Article 151 establishes two requirements for approval of open-air burning of vegetation: i) that it does not create an environmental risk or have an impact on air quality, and ii) that it is “justified on applicable grounds in the opinion of the competent authorities.”<sup>39</sup>
40. On the first requirement, Mexico asserts that the measures described above (see paragraph 33 *supra*) “are being implemented in accordance with REEPMA Article 151,” since their goal is to avoid environmental risk by minimizing the impacts on air quality of crop residue burning. Despite the goals of these measures, the response does not provide technical data proving that air quality is not negatively affected by crop burning or showing that no environmental risk is being created. In addition, the Party alleges that residue burning has been permitted because it is justified for its beneficial effects on the crop — it asserts that this practice helps control pests and diseases of asparagus —and for its economic impact on agriculture in the municipality.<sup>40</sup>
41. In this regard, the Submitter attached a study that relates burning on agricultural land with soil erosion and loss of soil nutrients and productivity.<sup>41</sup> NOM-015, cited by the Submitter, provides that the use of fire on agricultural land “has little technical justification, since it frequently proves more harmful than beneficial,” and that it contributes, among other things, to soil degradation; moreover, the standard acknowledges the possibility of achieving the same goals through the use of less risky alternatives, such as incorporation of plant residues into the soil.<sup>42</sup>
42. The Secretariat considers that the submission warrants the preparation of a factual record that includes information concerning the effects of burning of agricultural waste on air quality in the municipality of Caborca and concerning the pollutants emitted by this practice. A factual record may present information on effects of asparagus crop residues in Caborca, Sonora and provide information to the public on the use of fire in agricultural operations.

#### **D Alleged lack of burning permits**

43. The Submitter asserts that no open-air burning permits were issued emitted and that the DDUE merely “gave notice of the burning calendar,” and contends that this violates REEPMA Article 169, which provides that this activity may only be carried out with a permit issued by the DDUE.<sup>43</sup>
44. REEPMA Article 169 establishes the requirements for obtaining an open-air burning permit:

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<sup>39</sup> REEPMA Article 151.

<sup>40</sup> Response at 8.

<sup>41</sup> CEC (2014), *Burning Agricultural Waste: A Source of Dioxins* (Montreal: Commission for Environmental Cooperation), at 3.

<sup>42</sup> NOM-015, technical annex, part II, section 5).

<sup>43</sup> Revised Submission at 1–2.

Article 169. To obtain the permit mentioned in the preceding article, the interested party shall apply to the Department in writing at least fifteen working days before the intended date of the event, with a copy to the competent agricultural authority and the municipal civil protection unit, fully justifying the necessity of the activity. The Department shall review the application and issue a decision within a period not to exceed fifteen working days, either unconditionally approving, conditionally approving, or denying the permit.

45. Mexico asserts that the Meeting Minutes show that the municipal council of Caborca issued permits and approvals for the open-air burning of vegetation in the municipality for the 2015–16 season.<sup>44</sup> However, Mexico’s response does not provide supporting information about permits issued by the municipality of Caborca for crop residue burning during the 2015–16 season.
46. The Secretariat finds that a factual record may present information on the permits issued by the municipality of Caborca pursuant to REEPMA Article 169.

### **E Alleged public health harms caused by open-air burning**

47. The Submitter asserts that the population of the municipality suffers from adverse health effects during the crop residue burning season, that these conditions persist for “many days,” and that the burning should therefore be prohibited pursuant to REEPMA Article 170.<sup>45</sup> The Submitter attributes these adverse health effects to the agrichemicals used during planting and to the violation of the provisions applicable to the burning, which, he asserts, is carried with reference to weather conditions in the municipality rather than pursuant to the applicable legal provisions.<sup>46</sup>
48. REEPMA Article 170 provides as follows:

Article 170. The Municipal Council shall not permit open-air burning where toxic pollutants are generated that may cause adverse health effects, harms, or nuisance in the exposed population, nor in the case of urban solid waste. Any permit that has been issued may be suspended, in whole or in part, temporarily or permanently, where an extraordinary contingency event is caused by the burning, or where environmental and meteorological conditions do not allow for adequate dispersal of the pollutants.

49. The Party reports that Health Jurisdiction (*Jurisdiction Sanitaria*) no. 2 —agency of the Sonora state health authorities — conducted an “in-depth review” to ascertain whether the smoke from the burning of asparagus is a risk factor for respiratory conditions in the residents of the municipality. The review by the Health Jurisdiction no. 2 concluded that the adverse health effects reported are related to the low temperatures prevailing in the municipality during the burning season.<sup>47</sup> The Meeting Minutes mentions this review,<sup>48</sup> but the Party does not include

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<sup>44</sup> Response at 10.

<sup>45</sup> Revised Submission at 2: “much of the population complains of burning eyes, scratchy throat, headache, etc., for many days during the burning season.”

<sup>46</sup> *Ibid.* at 2.

<sup>47</sup> Response at 10.

<sup>48</sup> Response, Appendix A:

Dr. Luis Alberto Cáñez Lizárraga comments that the Health Jurisdiction conducted an in-depth review to ascertain whether the smoke from the burning of asparagus is becoming a risk factor for respiratory disease.

any information indicating whether crop residue burning was partially or temporarily suspended in conjunction with the contingency reported on 2 January 2016, given that REEPMA Article 170 provides for suspension of burning.

50. Mexico states that burning schedules were established as part of the controlled burning program, thus allowing for adequate dispersal of the resulting pollutants.<sup>49</sup> However, no information is provided in support of that statement.
51. On this matter, information provided by the Submitter indicates that agricultural waste burning is a source of dioxins and pollutants such as carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), particulate matter (PM), and polycyclic aromatic hydrocarbons (PAH) and that the dioxins and pollutants emitted during burning have negative effects on human health.<sup>50</sup>
52. A factual record may present information on the enforcement of REEPMA Article 170 in relation to the alleged effects of crop residue burning on the health of the residents of the municipality of Caborca.

## **F Enforcement of REEPMA Article 168 and NOM-015-SEMARNAT/SAGARPA-2007**

### **i) Regulatory scope of NOM-015**

53. Mexico states that NOM-015 “is not intended as a general regulation covering all uses of fire on agricultural land”<sup>51</sup> and that the standard is only applicable to land which, due to its location, may have an influence on the occurrence of forest fires; it asserts that this is not the case for agricultural land in the municipality of Caborca. The Party specifies that the municipal authorities of Caborca and other competent phytosanitary and human health authorities consider NOM-015 to be a reference standard.<sup>52</sup>
54. Effectively, NOM-015 establishes that its purpose is to prevent forest fires.<sup>53</sup> From the submission and from the elements presented by Mexico in its response, the matter raised by the Submitter deals with prevention of air pollution and potential harm to human health deriving from agricultural burning activities.
55. The Secretariat considers that the regulatory scope of NOM-015 does not correspond to the matter raised in the submission as the Submitter does not assert risk of forest fire.
56. On the other side, REEPMA Article 168 contains the obligations established by NOM-015:

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In this regard, he informed us that no significant evidence was found, and that instead, the main cause of respiratory conditions has to do with the low temperatures prevailing during this period, with respect to the incidence of other types of diseases affecting human health, these occur all year long.

<sup>49</sup> Response at 11.

<sup>50</sup> CEC (2014), *Burning Agricultural Waste: A Source of Dioxins*, note 41 *supra*:

Numerous studies link exposure to dioxins with a variety of harmful effects on health, such as: lower sperm concentration in males who were exposed when they were infants or children; changes in thyroid hormone levels; neurological effects in the fetus due to exposure during pregnancy; lower testosterone levels; reproductive problems in women, such as prolonged menstruation and early menopause; diabetes and harmful effects to the immune system; chloracne, which can be severe when exposure is very high; various types of cancer in humans.

<sup>51</sup> Response at 11.

<sup>52</sup> *Ibid.* at 11–12.

<sup>53</sup> NOM-015, recitals:

Whereas the actions set out in this NOM correspond to activities of physical prevention and management to limit the accumulation and modify the condition of fuels, resulting in better management of fire in forest ecosystems and diminished forest fire hazard.

Article 168. Open-air burning in areas under municipal jurisdiction shall only be permitted where carried out with the approval of the Department and with adherence to the applicable Mexican Official Standards, and as regards agricultural burning, it shall:

I. conform to the provisions of NOM-015-SEMARNAT/SAGARPA, and

II. be covered by all documentation and forms prescribed by NOM-015-SEMARNAT/SAGARPA, in the manner prescribed therein, submitted to the Department of Urban Development and Environment, with copy to the competent agricultural authority and the municipal civil protection unit.

57. On this matter, REEPMA Article 168 is not applicable to the matter raised by the Submitter as it specifically refers to compliance with NOM-015, which is outside the scope of the submission.
58. Therefore, the Secretariat does not recommend the development of a factual record with respect to enforcement of NOM-015 and REEPMA Article 168.

### III. NOTIFICATION

59. The Secretariat has reviewed submission SEM-16-001 (*Agricultural Waste Burning in Sonora*) in the light of the response of the United Mexican States.
60. Further to its review, and in accordance with NAAEC Article 15(1), the Secretariat recommends the preparation of a factual record concerning the alleged failure to effectively enforce:
  - i. REEPMA Articles 144, 146, and 172, in relation to the implementation of air quality monitoring systems and the corresponding action measures (§11–30);
  - ii. REEPMA Article 167, concerning the taking of the measures necessary to prevent and control air pollution-related environmental contingencies (§31–36);
  - iii. REEPMA Article 151, in regard to the prohibition on emitting pollutants in excess of the maximum permissible levels applicable to crop residue burning (§37–42);
  - iv. REEPMA Article 169, in reference to permitting of crop residue burning (§43–46);
  - v. REEPMA Article 170, in relation to alleged public health harm caused by open-air burning (§47–52);
61. As set out in Guideline 19.4 of the Guidelines, “[t]he Council should vote on whether to instruct the Secretariat to prepare the factual record normally within 60 working days of receiving the Secretariat’s recommendation” i.e., on or before 1 June 2017.

### Secretariat of the Commission for Environmental Cooperation

*(original signed)*

per: César Rafael Chávez, Executive Director

ccp: Enrique Lendo, Alternate Representative, Mexico  
Louise Métyvier, Alternate Representative, Canada  
Jane Nishida, Interim Alternate Representative, United States  
Submitter