

## 2018 FIRST CONSULTATION

1 July – 30 September 2018

### Compiled comments for Draft ISPM on Requirements for the use of modified atmosphere treatments as phytosanitary measures (2014-006)

#### Summary Comments

Name	Summary
Benin	Accepté
Cuba	No tenemos comentarios al documento
European Union	Completed on 27 September 2018 by the European Commission on behalf of the European Union and its 28 Member States.
Korea, Republic of	Republic of Korea agrees with the comments made during APPPC Regional workshop.
Lao People's Democratic Republic	Lao PDR has agreed with APPPC as Regional comments.
OIRSA	Proyecto de norma revisada e incorporado los comentarios.
Peru	Completada
Singapore	Singapore also the APPPC submitted comments.
Trinidad and Tobago	Trinidad and Tobago is in agreement with the comments made during the 2018 IPPC Regional Workshop in the Caribbean.

T (Type) - B = Bullet, C = Comment, P = Proposed Change, R = Rating

FAO sequential number	Para	Text	T	Comment
1	G	(General Comment)	C	<p><b>OIRSA</b></p> <p>En el Ítem 2 aplicación de tratamientos se recomienda agregar los niveles requeridos de los gases aplicar y tiempos de exposición según el tipo de plaga.</p> <p>Este proyecto de norma presenta aspectos muy generales, dado que no especifica los requerimientos básicos para la aplicación del tratamiento</p> <p><i>Category : TECHNICAL</i></p>
2	G	(General Comment)	C	<p><b>OIRSA</b></p> <p>Para la aplicar este tratamiento es necesario la construcción de las instalaciones adecuadas, lo cual conlleva a una gran inversión económica, es por dicha razón que se vuelve inaccesible para algunos países.</p> <p>La aplicación de este tratamiento en frontera no es muy viable debido a la cantidad de horas que producto debe permanecer bajo este tratamiento y por el consto que este tiene.</p>

				<p>Sería conveniente que la norma indicara sobre qué productos pueden ser tratados, que plagas y que etapas de estas son susceptibles al tratamiento.</p> <p>Que se desarrollen manuales que apoyen la aplicación de esta norma.</p> <p>La norma debería proveer una tabla de los parámetros requeridos para controlar las plagas, de lo contrario sin esa base se podría llegar aplicar de manera arbitraria rangos o tiempos sin un sustento técnico.</p> <p><i>Category : SUBSTANTIVE</i></p>
3	G	(General Comment)	C	<p><b>OIRSA</b></p> <p>Esta norma se considera algo confusa. En el p.55 se indican unos parámetros para la aplicación del tratamiento y en el p.107 se indica otros parámetros para los programas de tratamientos que incluye algunos de los parámetros indicados en el p.55.</p> <p>En los p.70 al 79 se indican características de los recinto para realizar tratamientos estos pueden se considerados como parte de las instalaciones de tratamiento o son instalaciones porque se indica que pueden almacenes o bodegas.</p> <p>En el p.77 de menciona a los operadores solo en este parrafo, Del p.90 en adelante, no está claro, según el subtitulo es para la instalaciones de tratamiento pero tambien se menciona responsabilidades para los proveedores de tratamiento por lo que este subtitulo debería indicars "Entidades de tratamiento". No esta claro a que se refieren con "Sistema" en el p.91 se indica que el sistema es para garantizar la correcta realización del tratamiento y para la protección posterior, por lo que se considera que estos aspectos son los que deberían desarrollarse en este punto.</p> <p>En la norma no se incluyeron los punto.5.4 y 5.5, pasa del 5.3. al 5.6.</p> <p>En los p.106 se menciona los parámetros para el tratamiento, programas de tratamientos y protocolo de tratamiento pero es como lo que se indica de los que estos pueden incluir.</p> <p>Cambiar en toda la norma la palabra "Cometido" por "responsabilidad" termino más utilizado.</p> <p><i>Category : SUBSTANTIVE</i></p>
4	G	(General Comment)	C	<p><b>Benin</b></p> <p>Pas de commentaire</p> <p><i>Category : TECHNICAL</i></p>
5	G	(General Comment)	C	<p><b>Guyana</b></p> <p>Guyana has reviewed this draft ISPM and found it to be an applicable provision for technical guidance for NPPO's utilization of modified treatment as a phytosanitary measure. However, as it relates to a harmonized approach, the standard would propose</p>

				some difficulty in its adoption globally. This is based on the premise that some countries may lack the technological and technical capacity to implement and monitor these treatments. These are inclusive but not limited to, the establishment of these treatment facilities and monitoring and verification of these treatment parameters from exporting countries with the capacity to do so. <i>Category : SUBSTANTIVE</i>
6	G	(General Comment)	C	<b>Sri Lanka</b> Sri Lanka Accepts all comments made by APPPC on this standard <i>Category : SUBSTANTIVE</i>
7	G	(General Comment)	C	<b>Canada</b> Canada supports the draft ISPM on modified atmosphere. Several substantive, technical and editorial comments are provided for consideration.  <i>Category : SUBSTANTIVE</i>
8	G	(General Comment)	C	<b>Antigua and Barbuda</b> Antigua and Barbuda has no objections to the proposed draft standard and supports comments submitted by CAHFSa. <i>Category : SUBSTANTIVE</i>
9	G	(General Comment)	C	<b>Peru</b>  Peru shares with the final comments of COSAVE <i>Category : SUBSTANTIVE</i>
10	G	(General Comment)	C	<b>Trinidad and Tobago</b> Trinidad and Tobago is in agreement with the comments made during the 2018 IPPC Regional Workshop in the Caribbean.  <i>Category : SUBSTANTIVE</i>
11	G	(General Comment)	C	<b>Nigeria</b> Nigeria agrees with the comments at the IPPC Regional Workshop for Africa and should be considered along with the comments from Nigeria. <i>Category : SUBSTANTIVE</i>
12	G	(General Comment)	C	<b>Grenada</b> A good standard that NPPO of Grenada will endorse. Adoption however will be challenge given the available technical and finance capacities <i>Category : SUBSTANTIVE</i>
13	G	(General Comment)	C	<b>Sri Lanka</b> Suggest to add treatment schedules for specific commodities (perishables, dry foods, timber etc) <i>Category : TECHNICAL</i>

14	G	(General Comment)	C	<b>Philippines</b> We agree with the comments made during the APPPC Regional Workshop. <i>Category : SUBSTANTIVE</i>
15	G	(General Comment)	C	<b>Korea, Republic of</b> Republic of Korea agrees with the comments made during APPPC Regional workshop. <i>Category : SUBSTANTIVE</i>
16	G	(General Comment)	C	<b>PPPO</b> We agree with the comments made during the regional workshop. <i>Category : SUBSTANTIVE</i>
17	G	(General Comment)	C	<b>Saint Kitts And Nevis</b> the concern are whether this measure been using anywhere in the region to determine its efficacy? and what are the financial implications of  this treatment requires further consultation.  Implementation Issues capacity of some country to implement the standard me be limited due to lack if facilities and expertise. this is a new technology for the Caribbean region.it will require new research, as some effects of the standard implementation are still unknown (eg. quality and shelf like of products  <i>Category : SUBSTANTIVE</i>
18	G	(General Comment)	C	<b>Bahrain</b> Paragraph no. 49  Should be sure that use modified atmosphere treatments has the same efficiency of Methyl Bromide fumigation on targeted pests. Scientific references on this regard should be provided. <i>Category : TECHNICAL</i>
19	G	(General Comment)	C	<b>Bahrain</b> Paragraph no. 34  More details on specific modified atmosphere treatments for this first consultation should be provided. <i>Category : TECHNICAL</i>
20	G	(General Comment)	C	<b>Bahrain</b> Paragraph no. 34  It is necessary to provide guarantees and assurances that the modified atmosphere treatments shall not affect the quality of the commodities <i>Category : TECHNICAL</i>
21	G	(General Comment)	C	<b>Botswana</b> no comment

				<i>Category : TECHNICAL</i>
22	G	(General Comment)	C	<b>Jamaica</b> Jamaica does not object to the adoption of the use of modified atmosphere treatments as a phytosanitary measure. The concerns are however, if this phytosanitary measure been used anywhere in the region to determine its efficacy and the financial implications of implementing such measures in developing countries. <i>Category : SUBSTANTIVE</i>
23	G	(General Comment)	C	<b>Oman</b> More information and implementation experiences are needed for this treatment method. <i>Category : SUBSTANTIVE</i>
24	G	(General Comment)	C	<b>Sierra Leone</b> Sierra Leone agrees to the comment made during the Africa regional workshop <i>Category : SUBSTANTIVE</i>
25	G	(General Comment)	C	<b>PPPO</b> the draft standard should be reviewed and structured to provide clear focus on the critical requirements to effectively deliver the treatment e.g (ref para 61)the required gas composition levels of the atmosphere must be maintained to achieve the required efficacy. This is an absolute requirement for the treatment as a phytosanitary measure. <i>Category : SUBSTANTIVE</i>
26	G	(General Comment)	C	<b>PPPO</b> No amendment for this draft <i>Category : EDITORIAL</i>
27	G	(General Comment)	C	<b>NEPPO</b> I agree with the comments made during NEPPO regional workshop <i>Category : SUBSTANTIVE</i>
28	G	(General Comment)	C	<b>Libya</b> Technical protocols are needed for the treatments of certain pests and certain hosts. <i>Category : TECHNICAL</i>
29	G	(General Comment)	C	<b>Libya</b> To extend this standard to the use of other gas. <i>Category : TECHNICAL</i>
30	G	(General Comment)	C	<b>Namibia</b> In agreement with the proposed content of this ISPM draft. <i>Category : SUBSTANTIVE</i>
31	G	(General Comment)	C	<b>South Africa</b> The National Plant Protection Organisation of South Africa (NPPOZA) endorse the comments from the regional workshop <i>Category : SUBSTANTIVE</i>
32	G	(General Comment)	C	<b>Caribbean Agricultural Health and Food Safety Agency</b> This draft standard is very clearly written and presented and

				provides excellent guidance on requirements for the use of modified atmosphere treatments as phytosanitary measures. CAHFSa has no objection to the content proposed. <i>Category : SUBSTANTIVE</i>
33	G	(General Comment)	C	<b>New Zealand</b> New Zealand agrees with the APPPC regional comments, and submits the comments made by New Zealand as noted in the APPPC submission. <i>Category : SUBSTANTIVE</i>
34	G	(General Comment)	C	<b>Lao People's Democratic Republic</b> Lao PDR has agreed with APPPC as Regional comments. <i>Category : TECHNICAL</i>
35	G	(General Comment)	C	<b>Lao People's Democratic Republic</b> Lao PDR has agreed with APPPC as Regional comments. <i>Category : TECHNICAL</i>
36	G	(General Comment)	C	<b>Argentina</b> We suggest the SC to evaluate the relevance of including the section on authorization of entities taking into account the draft under development on Authorization of entities. <i>Category : TECHNICAL</i>
37	G	(General Comment)	C	<b>Libya</b> No comments <i>Category : EDITORIAL</i>
38	G	(General Comment)	C	<b>United States of America</b> There is concern about developing a standard if there is little literature, implementation, research, and operational experience. Also, there are not many schedules for modified atmospheres available for different pests and commodities. <i>Category : SUBSTANTIVE</i>
39	G	(General Comment)	C	<b>APPPC</b>  (98) Philippines (11 Sep 2018 3:51 AM) General comment is to utilize the robust information and experience from our Australian counterparts regarding the Australian Fumigation Accreditation Scheme. (83) Cambodia (8 Sep 2018 12:50 PM) Cambodia has no comment on Draft ISPM:Requirements for the use of modified atmosphere treatments as phytosanitary measures (2014-006) (3) Malaysia (21 Aug 2018 4:58 AM) Malaysia has reviewed and accepted the draft.  <i>Category : SUBSTANTIVE</i>
40	G	(General Comment)	C	<b>Egypt</b> Technical guidance must be included <i>Category : SUBSTANTIVE</i>
41	G	(General Comment)	C	<b>Egypt</b> Guidance on the duration of application , percentage of lethal

				atmospheric doses , type of packages materials .  the implementation of this standard is a challenge because no clear specified guidance is provided <i>Category : SUBSTANTIVE</i>
42	G	(General Comment)	C	<b>NEPPO</b> To extend this standard to the use of other gas. <i>Category : SUBSTANTIVE</i>
43	G	(General Comment)	C	<b>NEPPO</b> Technical protocols are needed for the treatments of certain pests and certain hosts. <i>Category : SUBSTANTIVE</i>
44	G	(General Comment)	C	<b>Iraq</b> Iraq has no comments on the draft <i>Category : TECHNICAL</i>
45	G	(General Comment)	C	<b>Mexico</b> To apply this treatment is necessary to build the appropriate facilities, which leads to a large economic investment, it is for this reason that it becomes inaccessible for some countries.  The application of this treatment at the border is not very viable due to the number of hours that a consignment must remain under this treatment and the cost that it has.  It would be convenient for the standard to indicate which products can be treated, which pests and which stages of these are susceptible to this treatment.  The standard should provide a table of the parameters required to control the pests, otherwise it could be arbitrarily applied doses or concentrations without a technical support. <i>Category : SUBSTANTIVE</i>
46	G	(General Comment)	C	<b>Malawi</b> We agree with Comments <i>Category : SUBSTANTIVE</i>
47	G	(General Comment)	C	<b>IPPC Regional Workshop Africa</b> looked into the draft and we pass it <i>Category : TECHNICAL</i>
48	G	(General Comment)	C	<b>IPPC Regional Workshop Africa</b> Kenya has not proposed any changes on this document <i>Category : TECHNICAL</i>
49	G	(General Comment)	C	<b>COSAVE</b> We suggest the SC to evaluate the relevance of including the section on authorization of entities taking into account the draft under development on Authorization of entities. <i>Category : TECHNICAL</i>
50	G	(General Comment)	C	<b>Uruguay</b> We suggest the SC to evaluate the relevance of including section

				5.1 "Authorization of entities" taking into account the draft under development on Authorization of entities <i>Category : TECHNICAL</i>
51	G	(General Comment)	C	<b>Costa Rica</b> It is recommended to review the relevance of section 5.1 authorization of entities in this draft and in the adopted standard of treatments thermal sensors taking into account the elaboration of a specific norm about authorization of entities <i>Category : SUBSTANTIVE</i>
52	G	(General Comment)	C	<b>Kenya</b> No proposed changes on document <i>Category : TECHNICAL</i>
53	G	(General Comment)	C	<b>Algeria</b> NO COMMENT <i>Category : TECHNICAL</i>
54	G	(General Comment)	C	<b>Chile</b> Chile support and agrees with comments of COSAVE <i>Category : TECHNICAL</i>
55	G	(General Comment)	C	<b>Brazil</b> Brazil supports COSAVE's comments. <i>Category : SUBSTANTIVE</i>
56	G	(General Comment)	C	<b>Malawi</b> No comment <i>Category : SUBSTANTIVE</i>
57	G	(General Comment)	C	<b>Argentina</b> Responsibility should be translated into Spanish as "responsabilidad" throughout the text. <i>Category : TRANSLATION</i>
58	G	(General Comment)	C	<b>Uruguay</b> Responsibility should be translated into Spanish as "Responsabilidad" throughout the text <i>Category : TRANSLATION</i>
59	G	(General Comment)	C	<b>Malaysia</b> Malaysia has reviewed and accepted the draft. <i>Category : SUBSTANTIVE</i>
60	G	(General Comment)	C	<b>Peru</b> Peru shares the comments made by COSAVE <i>Category : SUBSTANTIVE</i>
61	G	(General Comment)	C	<b>Burkina Faso</b> La norme est très pertinente et aussi à mettre en oeuvre au regard de la technicité dont dispose le le Burkina Faso <i>Category : TECHNICAL</i>
62	G	(General Comment)	C	<b>Zambia</b> (105) 5.6. Monitoring and auditing (106). Inspection of treatment process by the NPPO should be done every time treatment is taking place to avoid compromising



				requirements by providers and/ or authorized entities. This is based on experiences drawn from phosphine fumigators in my country that have been cited for malpractices in the process of fumigating to save on costs. <i>Category : SUBSTANTIVE</i>
63	G	(General Comment)	C	<b>Zambia</b> (137) 7. Inspection (138). When a non-target pest is found after treatment, that simply means the treatment was not effective and should simply be failed by the NPPO without providing for any interpretation of the situation. This is because if the treatment is correctly executed, no single insect, whether target or non-target, should survive. <i>Category : TECHNICAL</i>
64	G	(General Comment)	C	<b>Guinea-Bissau</b> ddayay <i>Category : EDITORIAL</i>
65	G	(General Comment)	C	<b>Guinea-Bissau</b> All NPPO procedures should be appropriately documented and records, including those of monitoring inspections made and phytosanitary certificates issued should be maintained for at least one year. In cases of non-compliance or new or unexpected phytosanitary situations, documentation must be made available upon request as described in ISPM 13 (Guidelines for the notification of non-compliance and emergency action). <i>Category : SUBSTANTIVE</i>
66	G	(General Comment)	C	<b>Guinea-Bissau</b> The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect the residuums and correct deficiencies promptly <i>Category : SUBSTANTIVE</i>
67	G	(General Comment)	C	<b>Indonesia</b> considering the term "entity" have commonly used in developing ISPM, Indonesia propose to change "treatment providers" become "treatment entities" in the first sentence under sub section 4.2, measuring and mapping temperature. For consistency, changing may also to be done for the same term in other sentences. <i>Category : EDITORIAL</i>
68	G	(General Comment)	C	<b>Indonesia</b> Indonesia propose to change the word "provided" into "conducted" in the second sentence under sub section 5.6, monitoring and auditing. so the sentence become Continuous supervision of treatments should not be necessary conducted, .....

				<i>Category : EDITORIAL</i>
69	G	(General Comment)	C	<p><b>Indonesia</b> Indonesia propose to add "commodity or" before regulated article in section 4, measuring treatment parameters, so the complete sentence become "Critical parameter of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in commodity or regulated articles"</p> <p><i>Category : SUBSTANTIVE</i></p>
70	G	(General Comment)	C	<p><b>Indonesia</b> Indonesia propose to change the word "target pest" become "regulated pest" and "regulated area" become "an area" at the first sentence under impact on biodiversity and the environment".</p> <p><i>Category : EDITORIAL</i></p>
71	G	(General Comment)	C	<p><b>Indonesia</b> Indonesia propose to add "as" between modified atmosphere and phytosanitary treatment in the first sentence under background, so the complete sentence become "The purpose of this standard is to provide generic requirements for the application of modified atmosphere as phytosanitary treatment, ..."</p> <p><i>Category : EDITORIAL</i></p>
72	G	(General Comment)	C	<p><b>COSAVE</b> Responsibility should be translated into Spanish as "responsabilidad" throughout the text.</p> <p><i>Category : TRANSLATION</i></p>
73	G	(General Comment)	C	<p><b>OIRSA</b> En el Ítem 2 aplicación de tratamientos se recomienda agregar los niveles requeridos de los gases aplicar y tiempos de exposición según el tipo de plaga.</p> <p>Este proyecto de norma presenta aspectos muy generales, dado que no especifica los requerimientos básicos para la aplicación del tratamiento</p> <p><i>Category : TECHNICAL</i></p>
74	G	(General Comment)	C	<p><b>OIRSA</b> Para la aplicar este tratamiento es necesario la construcción de las instalaciones adecuadas, lo cual conlleva a una gran inversión económica, es por dicha razón que se vuelve inaccesible para algunos países.</p> <p>La aplicación de este tratamiento en frontera no es muy viable debido a la cantidad de horas que producto debe permanecer bajo este tratamiento y por el consto que este tiene.</p> <p>Sería conveniente que la norma indicara sobre qué productos pueden ser tratados, que plagas y que etapas de estas son susceptibles al tratamiento.</p> <p>Que se desarrollen manuales que apoyen la aplicación de esta</p>

			<p>norma.</p> <p>La norma debería proveer una tabla de los parámetros requeridos para controlar las plagas, de lo contrario sin esa base se podría llegar aplicar de manera arbitraria rangos o tiempos sin un sustento técnico.</p> <p><i>Category : SUBSTANTIVE</i></p>
75	G	(General Comment)	<p>C <b>OIRSA</b></p> <p>Esta norma se considera algo confusa. En el p.55 se indican unos parámetros para la aplicación del tratamiento y en el p.107 se indica otros parámetros para los programas de tratamientos que incluye algunos de los parámetros indicados en el p.55.</p> <p>En los p.70 al 79 se indican características de los recinto para realizar tratamientos estos pueden ser considerados como parte de las instalaciones de tratamiento o son instalaciones porque se indica que pueden almacenes o bodegas.</p> <p>En el p.77 de menciona a los operadores solo en este párrafo, Del p.90 en adelante, no está claro, según el subtítulo es para las instalaciones de tratamiento pero también se mencionan responsabilidades para los proveedores de tratamiento por lo que este subtítulo debería indicarse "Entidades de tratamiento". No está claro a que se refieren con "Sistema" en el p.91 se indica que el sistema es para garantizar la correcta realización del tratamiento y para la protección posterior, por lo que se considera que estos aspectos son los que deberían desarrollarse en este punto.</p> <p>En la norma no se incluyeron los puntos 5.4 y 5.5, pasa del 5.3. al 5.6.</p> <p>En los p.106 se menciona los parámetros para el tratamiento, programas de tratamientos y protocolo de tratamiento pero es como lo que se indica de los que estos pueden incluir.</p> <p>Cambiar en toda la norma la palabra "Cometido" por "responsabilidad" término más utilizado.</p> <p><i>Category : SUBSTANTIVE</i></p>
76	G	(General Comment)	<p>C <b>Costa Rica</b></p> <p>Se recomienda revisar la pertinencia de la sección 5.1 autorización de entidades en este borrador y en la norma adoptada de tratamientos térmicos tomando en cuenta la elaboración de una norma específica sobre autorización de entidades. En el p.77 de menciona a los operadores solo en este párrafo, Del p.90 en adelante, no está claro, según el subtítulo es para las instalaciones de tratamiento pero también se mencionan responsabilidades para los proveedores de tratamiento por lo que este subtítulo debería indicarse "Entidades de tratamiento". No está claro a que se refieren con "Sistema" en el p.91 se indica que el sistema es para garantizar la correcta realización del tratamiento y para la protección posterior, por lo que se considera que estos aspectos son los que deberían desarrollarse en este punto.</p>

				<p>En la norma no se incluyeron los punto.5.4 y 5.5, pasa del 5.3. al 5.6.</p> <p>En los p.106 se menciona los parametros para el tratamiento, programas de tratamientos y protocolo de tratamiento pero es como lo que se indica de los que estos pueden incluir.</p> <p>Cambiar en toda la norma la palabra "Cometido" por "responsabilidad" termino más utilizado.</p> <p><i>Category : SUBSTANTIVE</i></p>
77	G	(General Comment)	C	<p><b>Venezuela</b></p> <p>Una vez realizada esta revisión, Venezuela esta de acuerdo con la propuesta de norma, en todos sus aspectos</p> <p><i>Category : TECHNICAL</i></p>
78	G	(General Comment)	C	<p><b>Nicaragua</b></p> <p>En el Ítem 2 aplicación de tratamientos se recomienda agregar los niveles requeridos de los gases aplicar y tiempos de exposición según el tipo de plaga.</p> <p>Este proyecto de norma presenta aspectos muy generales, dado que no especifica los requerimientos básicos para la aplicación del tratamiento</p> <p><i>Category : TECHNICAL</i></p>
79	1	<b>Draft ISPM: Requirements for the use of modified atmosphere treatments as <del>phytosanitary</del> <u>Phytosanitary</u> measures (2014-006)</b>	P	<p><b>Ghana</b></p> <p><i>Category : EDITORIAL</i></p>
80	1	<b>Draft ISPM: Requirements for the use of modified atmosphere treatments as phytosanitary measures (2014-006)</b>	C	<p><b>China</b></p> <p>It is recommended that the standard be suspended.The purpose of modified atmosphere treatment for commodity preservation and insects control has been put into practical application. However, it is not technically mature enough to support the formulation of standards for the phytosanitary treatment of quarantine pests.So far, there are no technical schedules for the implementation of the phytosanitary treatment using modified atmosphere, indicating that this techniques cannot be used for phytosanitary treatment.The current draft standard lacks technical requirements.</p> <p><i>Category : SUBSTANTIVE</i></p>
81	1	<b>Draft ISPM: Requirements for the use of modified atmosphere treatments as phytosanitary measures (2014-006)</b>	C	<p><b>Mozambique</b></p> <p>Modified atmosphere treatments (this has to be defined in the Glossary of Terms)</p> <p><i>Category : TECHNICAL</i></p>
82	1	<b><del>Draft ISPM: Requirements for the use of</del> modified atmosphere treatments <u>as in the title should be defined in the glossary of phytosanitary measures (2014-006) terms, ISPM 5</u></b>	P	<p><b>IPPC Regional Workshop Africa</b></p> <p><i>Category : SUBSTANTIVE</i></p>
83	1	<b>Draft ISPM: Requirements for the use of modified atmosphere treatments as phytosanitary measures (2014-006)</b>	C	<p><b>IPPC Regional Workshop Africa</b></p> <p>No comment</p> <p><i>Category : TECHNICAL</i></p>

84	8	<b>Current document stage</b>	C	<b>Malawi</b> We accept the draft ISPM <i>Category : SUBSTANTIVE</i>
85	21	2016-11 SC <del>Ms Marina</del> Ms Marina ZLOTINA (US, Steward)	P	<b>PPPO</b>  <i>Category : EDITORIAL</i>
86	21	2016-11 SC <del>Ms Marina</del> Ms Marina ZLOTINA (US, Steward)	P	<b>APPPC</b> (27) New Zealand (4 Sep 2018 6:27 AM) <i>Category : EDITORIAL</i>
<b>Scope</b>				
87	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures, <u>which involves altering ambient atmospheric gas concentrations, for regulated pests on regulated articles. The purpose of this standard is to enhance harmonization of such measures in different countries.</u> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>Viet Nam</b> "The purpose of this standard is to enhance harmonization of such measures in different countries" should be place in another purpose statement in the background <i>Category : SUBSTANTIVE</i>
88	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary <del>measures. The purpose of this standard is to enhance harmonization of such measures in different countries</del> <u>that involves altering ambient atmospheric gas concentrations.</u> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>Korea, Republic of</b> Suggest deleting "The purpose of this standard is to enhance harmonization of such measures in different countries" as there is another purpose statement in the background and these do not align. <i>Category : SUBSTANTIVE</i>
89	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. <del>This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.</del>  <u>This standard does not provide details on specific modified atmosphere treatments and does not include use of modified atmospheres for non-phytosanitary purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres.</u>	P	<b>European Union</b> Creation of a new paragraph, change of the order of the two sentences (more logical order) and more precise wording. <i>Category : SUBSTANTIVE</i>

90	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified <del>atmospheres-atmosphere</del> for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>European Union</b> Modified atmosphere treatments used in plural is fine, but here and later it is better to use 'modified atmosphere' (singular). <i>Category : EDITORIAL</i>
91	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries.  This standard <del>specifically also provides guidance for NPPOs on the authorization of treatment providers to conduct modified atmosphere treatments. This standard does not provide details on specific modified atmosphere treatments and does not</del> include use of modified <del>atmospheres-atmosphere</del> for <del>other non-phytosanitary</del> purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. <del>This standard does not provide details on specific modified atmosphere treatments.</del>	P	<b>EPPO</b> Modified atmosphere treatments used in plural is fine, but here and later it is better to use 'modified atmosphere' (singular).  Creation of a new paragraph, change of the order of the two sentences (more logical order) and more precise wording.  The guidance on the authorization of treatment providers is an important element of the standard which therefore should be included in the scope. <i>Category : SUBSTANTIVE</i>
92	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary <del>measures. The purpose of this standard is to enhance harmonization of such measures in different countries</del> for regulated pests on regulated articles. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>PPPO</b> Revised change by New Zealand on 4 Sep 2018 1:03 -Propose including additional wording to align with ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. -Suggest deleting "The purpose of this standard is to enhance harmonization of such measures in different countries" as there is another purpose statement in the background and these do not align. <i>Category : TECHNICAL</i>
93	34	This standard provides technical guidance for <del>national plant protection organizations-National Plant Protection Organizations</del> (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>Ghana</b> <i>Category : EDITORIAL</i>

94	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	C	<b>Libya</b> Harmonization between standards <i>Category : SUBSTANTIVE</i>
95	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries</del> <u>for regulated pests on regulated articles.</u> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>New Zealand</b> 1. Propose including additional wording to align with ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. 2. Suggest deleting "The purpose of this standard is to enhance harmonization of such measures in different countries" as there is another purpose statement in the background and these do not align. <i>Category : TECHNICAL</i>
96	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	C	<b>United States of America</b> Do MAs just cover Carbon Dioxide, Nitrogen, Oxygen or can they cover other atmospheric gases, such as Sulphur or Argon? This is not very clear from the draft. <i>Category : TECHNICAL</i>
97	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments, <u>such as specific schedules or specific efficacy levels or requirements.</u>	P	<b>United States of America</b> For clarity and consistency with other treatment ISPMs. <i>Category : TECHNICAL</i>
98	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	C	<b>United States of America</b> Different sources use different interpretations of terms modified atmosphere (MA) and controlled atmosphere (CA). Neither term MA nor Controlled Atmosphere is defined in the Glossary, in contrast to other phytosanitary treatments (i.e., heat treatment, fumigation, irradiation). A clear definition of MA needs to be developed and included to the Glossary to avoid the further confusion, particularly when implementing this ISPM. <i>Category : SUBSTANTIVE</i>

99	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments. <u>Definition: modified atmosphere treatment</u>	P	<b>APPPC</b> (9) China (3 Sep 2018 5:20 AM) Lack of definition.  <i>Category : SUBSTANTIVE</i>
100	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary <del>measures</del> <u>measures for regulated pests on regulated articles</u> . The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>APPPC</b> 28) New Zealand (4 Sep 2018 6:28 AM) Propose including additional wording to align with ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures  <i>Category : TECHNICAL</i>
101	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries.</del> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>APPPC</b> 29) New Zealand (4 Sep 2018 6:29 AM) Suggest deleting "The purpose of this standard is to enhance harmonization of such measures in different countries" as there is another purpose statement in the background and these do not align.  <i>Category : TECHNICAL</i>
102	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability introduction of foodstuffs or other quality related uses of modified atmospheres</del> <u>a toxic agent</u> . This standard does not provide details on specific modified atmosphere treatments.	P	<b>APPPC</b> (50) Thailand (5 Sep 2018 12:37 PM) The purpose of standard as describing in the scope should be deleted. Meanwhile, a description of modified atmosphere treatment from Section Background should be added for better clarification  <i>Category : SUBSTANTIVE</i>
103	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary <del>measures. The purpose of this standard is to enhance harmonization of such measures in different countries</del> <u>that involves altering ambient atmospheric gas concentrations</u> . This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs	P	<b>APPPC</b> (88) APPPC (11 Sep 2018 2:37 AM) Suggest deleting "The purpose of this standard is to enhance harmonization of such measures in different countries" as there is another purpose statement in the background and these do not align.  <i>Category : SUBSTANTIVE</i>



		or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.		
104	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	C	<b>NEPPO</b> Harmonization between standards <i>Category : SUBSTANTIVE</i>
105	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	C	<b>Philippines</b> We believe that the main goal of ISPMs is to harmonize measures through prescribing standards for member countries. <i>Category : EDITORIAL</i>
106	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries.</del> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>Philippines</b> <i>Category : EDITORIAL</i>
107	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries. This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing involve altering ambient atmospheric gas concentration without the perishability introduction of foodstuffs or other quality related uses of modified atmospheres the toxic gas.</del> This standard does not provide details on specific modified atmosphere treatments.	P	<b>Thailand</b> The purpose of standard as describing in the scope should be deleted. Meanwhile, a description of modified atmosphere treatment from Section Background should be added for better clarification. <i>Category : SUBSTANTIVE</i>
108	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries.</del> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the	P	<b>Argentina</b> Deleted sentence for consistency with other ISPMs on treatments. Moreover the harmonization is the purpose of all ISPMs. <i>Category : TECHNICAL</i>

		perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.		
109	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries.</del> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>Uruguay</b> Deleted sentence for consistency with other ISPMs on treatments. Moreover harmonization is the purpose of all ISPMs Category : <i>TECHNICAL</i>
110	34	This standard provides technical guidance for national plant protection organizations (NPPOs) on the application of modified atmosphere treatments as phytosanitary measures. <del>The purpose of this standard is to enhance harmonization of such measures in different countries.</del> This standard specifically does not include use of modified atmospheres for other purposes, such as minimizing the perishability of foodstuffs or other quality related uses of modified atmospheres. This standard does not provide details on specific modified atmosphere treatments.	P	<b>COSAVE</b> Deleted sentence for consistency with other ISPMs on treatments. Moreover the harmonization is the purpose of all ISPMs. Category : <i>TECHNICAL</i>
111	34	La presente norma proporciona orientación técnica para las organizaciones nacionales de protección fitosanitaria (ONPF) sobre la aplicación de tratamientos en atmósfera modificada como medidas fitosanitarias. <del>El propósito de la presente norma es fomentar la armonización de tales medidas en países diferentes.</del> La presente norma no incluye <del>específicamente</del> el uso de atmósferas modificadas para otros fines, como la reducción al mínimo del carácter perecedero de productos alimenticios u otros usos <del>de las atmósferas modificadas</del> relacionados con la calidad. <del>La presente norma no.</del> <del>Tampoco</del> proporciona información detallada sobre tratamientos <del>específicos</del> en atmósfera <del>modificada</del> <del>específicos</del> <del>modificada</del> .	P	<b>OIRSA</b> Las NIMF son normas de referencia para la armonización. Mejorar la redacción y darle sentido al párrafo.  Category : <i>TECHNICAL</i>
112	34	La presente norma proporciona orientación técnica para las organizaciones nacionales de protección fitosanitaria (ONPF) sobre la aplicación de tratamientos en atmósfera modificada como medidas fitosanitarias. El propósito de la presente norma es fomentar la armonización de tales medidas en países diferentes. <del>Esta norma también proporciona orientación a las ONPF sobre la autorización, el monitoreo y la auditoría de las entidades involucradas en los tratamientos en atmósferas modificadas.</del> La presente norma no incluye específicamente el uso de atmósferas modificadas para otros fines, como la reducción al mínimo del carácter perecedero de productos alimenticios u otros usos de las atmósferas modificadas relacionados con la calidad. La presente norma no proporciona información detallada sobre tratamientos en atmósfera modificada específicos.	P	<b>OIRSA</b> Representa un alcance de la norma. Category : <i>SUBSTANTIVE</i>

113	34	La presente norma proporciona orientación técnica para las organizaciones nacionales de protección fitosanitaria (ONPF) sobre la aplicación de tratamientos en atmósfera modificada como medidas fitosanitarias. <del>El propósito de la presente norma es fomentar la armonización de tales medidas en países diferentes.</del> La presente norma no incluye <del>específicamente</del> el uso de atmósferas modificadas para otros fines, como la reducción al mínimo del carácter perecedero de productos alimenticios u otros usos de las atmósferas modificadas relacionados con la calidad. <del>La presente norma no</del> <u>Tampoco</u> proporciona información detallada sobre tratamientos <u>específicos</u> en atmósfera <del>modificada</del> <u>específicos/modificada</u> .	P	<b>Costa Rica</b> Las NIMF son normas de referencia para la armonización. Mejorar la redacción y darle sentido al párrafo. <i>Category : TECHNICAL</i>
References				
114	35	References	C	<b>United States of America</b> More references on MA would be helpful. <i>Category : SUBSTANTIVE</i>
115	37	<del>Heather, N.W. &amp; Hallman, G.J. 2008. Disinfestation with modified (controlled) atmosphere storage, In: N.W. Heather &amp; G.J. Hallman. Pest management and phytosanitary trade barriers, pp. 171–185. Wallingford, UK, CABI. 272 pp.</del>	P	<b>European Union</b> 'Heather and Hallman' and other relevant references should rather be included in the Background section (see EU comment on paragraph 46). <i>Category : TECHNICAL</i>
116	37	<del>Heather, N.W. &amp; Hallman, G.J. 2008. Disinfestation with modified (controlled) atmosphere storage, In: N.W. Heather &amp; G.J. Hallman. Pest management and phytosanitary trade barriers, pp. 171–185. Wallingford, UK, CABI. 272 pp.</del>	P	<b>EPPO</b> Category : TECHNICAL 'Heather and Hallman' and other relevant references should rather be included in the Background section (see EPPO comment on paragraph 46). <i>Category : TECHNICAL</i>
Definitions				
117	39	Definitions of <del>phytosanitary</del> <u>Phytosanitary</u> terms used in this standard can be found in ISPM 5 ( <i>Glossary of phytosanitary terms</i> ).	P	<b>Ghana</b> <i>Category : EDITORIAL</i>
118	39	Definitions of phytosanitary terms used in this standard can be found in ISPM 5 ( <i>Glossary of phytosanitary terms</i> ).  <u>modified atmosphere treatment</u>	P	<b>China</b> Please add an explanation or definition for " modified atmosphere treatment" <i>Category : SUBSTANTIVE</i>
Outline of Requirements				
119	41	NPPOs should ensure that the application of modified atmosphere treatment is carried out effectively so that critical parameters are <del>met</del> at the required level to achieve the stated efficacy.	P	<b>European Union</b> Better English (See paragraphs 43 and 64 of the draft standard on "Requirements for the use of fumigation as a phytosanitary measure".) <i>Category : EDITORIAL</i>
120	41	NPPOs should ensure that the application of modified atmosphere treatment is carried out effectively so that critical parameters are <del>met</del> at the required level to achieve the stated efficacy.	P	<b>EPPO</b> Better English (See paragraphs 43 and 64 of the draft standard on "Requirements for the use of fumigation as a phytosanitary measure".)

				<i>Category : EDITORIAL</i>
121	41	NPPOs should ensure that the application of modified atmosphere treatment is carried out effectively so that critical parameters <u>for each particular treatment schedule</u> are met at the required level to achieve the stated <del>efficacy</del> <u>efficacy for this treatment</u> .	P	<b>United States of America</b> The language is vague without a standard or some quantitative parameters. The words "effectively" and "critical parameters" may need to be defined more precisely <i>Category : TECHNICAL</i>
122	41	NPPOs should ensure that the application of <del>modified atmosphere treatment</del> <u>Modified Atmosphere Treatment (MAT)</u> is carried out effectively so that critical parameters are met at the required level to achieve the stated efficacy.	P	<b>IPPC Regional Workshop Africa</b> <i>Category : SUBSTANTIVE</i>
123	41	NPPOs should ensure that the application of modified atmosphere treatment is carried out <del>effectively so that critical parameters are met at the required level to achieve the stated efficacy</del> <u>effectively</u> .	P	<b>Philippines</b> <i>Category : EDITORIAL</i>
124	41	Las ONPF deberían asegurarse de que la aplicación del tratamiento en atmósfera modificada se lleve a cabo de manera eficaz, de manera que los parámetros críticos alcancen los niveles <del>requeridos indicados</del> para lograr la eficacia <del>indicada</del> <u>requerida</u> .	P	<b>OIRSA</b> Mejora la redacción del párrafo <i>Category : EDITORIAL</i>
125	41	Las ONPF deberían asegurarse de que la aplicación del tratamiento en atmósfera modificada se lleve a cabo de manera eficaz, de manera que los parámetros críticos alcancen los niveles <del>requeridos indicados</del> para lograr la eficacia <del>indicada</del> <u>requerida</u> .	P	<b>Costa Rica</b> Termino correcto, I <i>Category : TECHNICAL</i>
126	42	The <del>main</del> -requirements for enclosures used for the treatments, application of modified atmosphere treatment, measuring of treatment parameters, and treatment procedures should be followed. Treatment facilities should implement systems which includes preventing the contamination of the treated commodity. Record keeping and documentation requirements should be followed to enable auditing, verification or trace back.	P	<b>European Union</b> All the requirements should be followed and not only the main ones. <i>Category : SUBSTANTIVE</i>
127	42	The main requirements for enclosures used for the treatments, application of modified atmosphere treatment, measuring of treatment parameters, and treatment procedures should be followed. Treatment <del>facilities-providers</del> should implement systems which includes preventing the <u>infestation and</u> contamination of the treated commodity. Record keeping and documentation requirements should be followed to enable auditing, verification or trace back.	P	<b>European Union</b> More precise wording. <i>Category : EDITORIAL</i>
128	42	The <del>main</del> -requirements for enclosures used for the treatments, application of modified atmosphere treatment, measuring of treatment parameters, and treatment procedures should be followed. Treatment <del>facilities-providers</del> should implement systems which includes preventing the <u>infestation and</u> contamination of the treated commodity. Record keeping and documentation requirements should be followed to enable auditing, verification or trace back.	P	<b>EPPO</b> More precise wording.  All the requirements should be followed and not only the main ones. <i>Category : SUBSTANTIVE</i>

129	42	The main requirements for enclosures used for the treatments, application of modified atmosphere treatment, measuring of treatment parameters, and treatment procedures should be followed. Treatment facilities should implement systems which includes preventing the contamination of the treated commodity. Record keeping and documentation requirements should be followed to enable auditing, verification or trace back.	C	<b>United States of America</b> Clarify which level trace back should be at: producer, or treatment entity? <i>Category : TECHNICAL</i>
130	42	The main requirements for enclosures used for the treatments, application of modified atmosphere treatment, measuring of treatment parameters, and treatment procedures should be followed. Treatment <del>facilities</del> <u>entities</u> should implement systems which includes preventing the contamination of the treated commodity. Record keeping and documentation requirements should be followed to enable auditing, verification or trace back.	P	<b>NEPPO</b> to be aligned with ISPM 15 <i>Category : SUBSTANTIVE</i>
131	43	The roles and responsibilities of <del>parties</del> <u>entities (person or organisation)</u> involved in the modified atmosphere treatments are described. Guidance is provided to NPPOs on authorizing, monitoring and auditing entities involved in modified atmosphere treatments.	P	<b>Viet Nam</b> To ensure consistency with the requirement of "ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures". <i>Category : SUBSTANTIVE</i>
132	43	The roles and responsibilities of <del>parties</del> <u>entities (person or organisation)</u> involved in the modified atmosphere treatments are described. Guidance is provided to NPPOs on authorizing, monitoring and auditing entities involved in modified atmosphere treatments.	P	<b>Korea, Republic of</b> To ensure consistency with the requirement of "ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures". <i>Category : SUBSTANTIVE</i>
133	43	The roles and responsibilities of parties involved in the modified atmosphere treatments are described. Guidance is provided to NPPOs on authorizing, monitoring and auditing <del>entities involved in modified atmosphere treatments</del> <u>treatment providers</u> .	P	<b>European Union</b> The TPG reviewed first consultation comments on the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure" and noted that a treatment provider is a person or organization applying the treatment operating in a physical construction (i.e. the treatment facility). Because "entity" could refer to the facility, the provider, or both, the TPG supported using "treatment provider" and "treatment facility" instead of "entity" when it was clear that the references in the draft ISPM were made to either the provider or the facility. They felt such an approach would be clearer, although they acknowledged it was not consistent with the draft ISPM on "Requirements for the use of temperature treatments as phytosanitary measures".  According to Appendix 4 (General recommendations on use of terms in ISPMs) of the IPPC style guide for standards and meeting documents, in ISPMs and other IPPC documents it is recommended the term "authorize" to be used "to give authority to a person or a body to do something".  In this sentence, it is therefore suggested to replace "entities" with "treatment providers" which is a term already used in this draft standard (e.g. see paragraph 84) and used many times in

				ISPM 15 (Regulation of wood packaging material in international trade). <i>Category : TECHNICAL</i>
134	43	The roles and responsibilities of parties involved in the modified atmosphere treatments are described. Guidance is provided to NPPOs on authorizing, monitoring and auditing <del>entities involved in modified atmosphere treatments</del> <u>treatment providers</u> .	P	<b>EPPO</b> The TPG reviewed first consultation comments on the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure" and noted that a treatment provider is a person or organization applying the treatment operating in a physical construction (i.e. the treatment facility). Because "entity" could refer to the facility, the provider, or both, the TPG supported using "treatment provider" and "treatment facility" instead of "entity" when it was clear that the references in the draft ISPM were made to either the provider or the facility. They felt such an approach would be clearer, although they acknowledged it was not consistent with the draft ISPM on "Requirements for the use of temperature treatments as phytosanitary measures".  According to Appendix 4 (General recommendations on use of terms in ISPMs) of the IPPC style guide for standards and meeting documents, in ISPMs and other IPPC documents it is recommended the term "authorize" to be used "to give authority to a person or a body to do something".  In this sentence, it is therefore suggested to replace "entities" with "treatment providers" which is a term already used in this draft standard (e.g. see paragraph 84) and used many times in ISPM 15 (Regulation of wood packaging material in international trade). <i>Category : TECHNICAL</i>
135	43	The roles and responsibilities of <del>parties</del> <u>entities (person or organization)</u> involved in the modified atmosphere treatments are described. Guidance is provided to NPPOs on authorizing, monitoring and auditing entities involved in modified atmosphere treatments.	P	<b>Japan</b> To ensure consistency with the requirement of "ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures". This proposed change is supported by APPPC as well as by Japan. <i>Category : SUBSTANTIVE</i>
136	43	The roles and responsibilities of <del>parties</del> <u>entities (person or organization)</u> involved in the modified atmosphere treatments are described. Guidance is provided to NPPOs on authorizing, monitoring and auditing entities involved in modified atmosphere treatments.	P	<b>APPPC</b> 89) APPPC (11 Sep 2018 2:41 AM) To ensure consistency with the requirement of "ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures". (76) Japan (8 Sep 2018 2:32 AM) To ensure consistency with the requirement of "ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures".  <i>Category : SUBSTANTIVE</i>



137	43	The roles and responsibilities of parties involved in the <del>modified atmosphere treatments-MAT</del> are described. Guidance is provided to NPOs on authorizing, monitoring and auditing entities involved in <del>modified atmosphere treatments</del> <u>MAT</u> .	P	<b>IPPC Regional Workshop Africa</b> <i>Category : SUBSTANTIVE</i>
138	43	<del>Se describen las funciones y responsabilidades de las partes que intervienen en los tratamientos en atmósfera modificada. Se proporciona orientación a las ONPF sobre la autorización, el monitoreo y la auditoría de las entidades involucradas en los tratamientos en atmósferas modificadas.</del>	P	<b>OIRSA</b> Este componente no debe ser parte de la norma ya que no provee ningún elemento técnico de requisito para los tratamientos en atmósfera modificada. La norma propuesta sobre autorización de entidades abarca el concepto en detalle. <i>Category : TECHNICAL</i>
139	43	<del>Se describen las funciones y responsabilidades de las partes que intervienen en los tratamientos en atmósfera modificada. Se proporciona orientación a las ONPF sobre la autorización, el monitoreo y la auditoría de las entidades involucradas en los tratamientos en atmósferas modificadas.</del>	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>
<b>BACKGROUND</b>				
140	45	The purpose of this standard is to provide generic requirements for the application of modified atmosphere phytosanitary treatments, specifically those adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	C	<b>PPPO</b> This standard has 2 purpose statements. The other is in para 34 "scope". Suggest to keep this statement and delete the other. Also, it may be better to put this as the last paragraph in the BACKGROUND. <i>Category : EDITORIAL</i>
141	45	The purpose of this standard is to provide generic requirements for the application of modified atmosphere phytosanitary treatments, specifically those adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	C	<b>APPPC</b> (30) New Zealand (4 Sep 2018 6:32 AM) This standard has 2 purpose statements. Suggest to keep the purpose statement in this para and delete the other is in "scope".  Also suggest that it may be better to place the purpose statement as the last paragraph in "background". <i>Category : EDITORIAL</i>
142	45	The purpose of this standard is to provide generic requirements for the application of modified atmosphere <del>treatments as</del> phytosanitary <del>treatments</del> <u>measures</u> , specifically those <del>that could be</del> adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	P	<b>Costa Rica</b> or consistency and because currently there are no modified atmosphere treatments adopted under ISPM 28 <i>Category : TECHNICAL</i>
143	45	The purpose of this standard is to provide <del>generic-general</del> requirements for the application of modified atmosphere phytosanitary treatments, specifically those adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	P	<b>Iran</b> <i>Category : EDITORIAL</i>
144	45	The purpose of this standard is to provide generic requirements for the application of modified atmosphere <del>treatments as</del> phytosanitary <del>treatments</del> <u>measures</u> , specifically those <del>that could be</del> adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	P	<b>Argentina</b> For consistency and because currently there are no modified atmosphere treatments adopted under ISPM 28. <i>Category : TECHNICAL</i>
145	45	The purpose of this standard is to provide generic requirements for the application of modified atmosphere <del>treatments as</del> phytosanitary <del>treatments</del> <u>measures</u> ,	P	<b>Uruguay</b> For consistency. Currently there are no modified atmosphere treatments adopted under ISPM 28

		specifically those <u>that could be</u> adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).		<i>Category : TECHNICAL</i>
146	45	The purpose of this standard is to provide generic requirements for the application of modified atmosphere <u>treatments as</u> phytosanitary <del>treatments</del> <u>measures</u> , specifically those <u>that could be</u> adopted under ISPM 28 ( <i>Phytosanitary treatments for regulated pests</i> ).	P	<b>COSAVE</b> For consistency and because currently there are no modified atmosphere treatments adopted under ISPM 28. <i>Category : TECHNICAL</i>
147	45	La finalidad de la presente norma es proporcionar requisitos genéricos para la aplicación de los tratamientos fitosanitarios en atmósfera modificada, <del>específicamente de los adoptados</del> en <u>consistencia con</u> el marco de la NIMF 28 ( <i>Tratamientos fitosanitarios para plagas reglamentadas</i> ).	P	<b>OIRSA</b> Mejora la redacción del párrafo. <i>Category : EDITORIAL</i>
148	45	La finalidad de la presente norma es proporcionar requisitos genéricos para la aplicación de los tratamientos fitosanitarios en atmósfera modificada, <del>específicamente de los adoptados</del> en <u>consistencia con</u> el marco de la NIMF 28 ( <i>Tratamientos fitosanitarios para plagas reglamentadas</i> ).	P	<b>Costa Rica</b> Mejora la redacción <i>Category : EDITORIAL</i>
149	46	Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas <del>concentrations without the introduction of a toxic agent. They are typically based on achieving concentrations, which is achieved through an</del> increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>Canada</b> It is unclear what is meant by the term 'toxic agent'. This word as it has several different meanings to different sectors, and may be considered to be a controversial word. Is this to mean any substance not commonly found in the atmosphere already? Would it include hydrogen peroxide (a registered pesticide) that breaks down into water and oxygen – components of the atmosphere? <i>Category : TECHNICAL</i>
150	46	Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	C	<b>European Union</b> The reference to relevant references, including Heather and Hallman should be included here. (see also EU comment on para 37). <i>Category : TECHNICAL</i>
151	46	Modified atmosphere phytosanitary treatments involve altering <del>ambient atmospheric</del> gas concentrations <u>in ambient air</u> without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>European Union</b> To improve clarity. <i>Category : EDITORIAL</i>
152	46	Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	C	<b>EPPO</b> The reference to relevant references, including Heather and Hallman should be included here. (see also EPPO comment on para 37) <i>Category : TECHNICAL</i>
153	46	Modified atmosphere phytosanitary treatments involve altering <del>ambient atmospheric</del> gas concentrations <u>in ambient air</u> without the introduction of a toxic	P	<b>EPPO</b> To improve clarity <i>Category : EDITORIAL</i>




		agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.		
154	46	Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	C	<b>China</b> In fumigation treatment, high concentration of carbon dioxide is toxic to plants and harmful organisms. So "without the introduction of a toxic agent " and " an increase in the carbon dioxide content" are contradictory. <i>Category : SUBSTANTIVE</i>
155	46	Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	C	<b>United States of America</b> Modified atmosphere frequently used in conjunction with alteration or modification of other environmental parameters, such as temperature and humidity. Suggest to include above text in para 46 and as justification; this is how this is done operationally, and these parameters are important. <i>Category : TECHNICAL</i>
156	46	Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	C	<b>United States of America</b> see general comments about the need for clear definition of MAs and types of gases used for them. <i>Category : TECHNICAL</i>
157	46	<del>Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.</del>	P	<b>APPPC</b> (12) China (3 Sep 2018 7:47 AM) In fumigation treatment, high concentration of carbon dioxide is toxic to plants and harmful organisms, and it is also used as a toxic agent. "without the introduction of a toxic agent " and " an increase in the carbon dioxide content" are contradictory. <i>Category : SUBSTANTIVE</i>
158	46	<del>Modified atmosphere phytosanitary treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.</del>	P	<b>APPPC</b> 51) Thailand (5 Sep 2018 12:37 PM) This clause should be moved to Section Scope for better clarification of the MA. <i>Category : EDITORIAL</i>
159	46	Modified <del>atmosphere phytosanitary atmosphere</del> treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>Costa Rica</b> For consistency. <i>Category : TECHNICAL</i>

160	46	Modified atmosphere phytosanitary treatments <del>involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They</del> are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>Thailand</b> This clause should be moved to Section Scope for better clarification of the MA. <i>Category : EDITORIAL</i>
161	46	Modified atmosphere <del>phytosanitary</del> treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>Argentina</b> For consistency. <i>Category : TECHNICAL</i>
162	46	Modified atmosphere <del>phytosanitary</del> treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>Uruguay</b> For consistency <i>Category : TECHNICAL</i>
163	46	Modified atmosphere <del>phytosanitary</del> treatments involve altering ambient atmospheric gas concentrations without the introduction of a toxic agent. They are typically based on achieving an increase in the carbon dioxide content (hypercarbia) or reducing the oxygen content (hypoxia or anoxia) of the treatment environment, or both, to create an atmosphere lethal to target pests.	P	<b>COSAVE</b> For consistency. <i>Category : TECHNICAL</i>
164	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>Viet Nam</b> Propose that when the TPG next reviews ISPM 5 that a definition of modified or controlled atmosphere is considered. <i>Category : TECHNICAL</i>
165	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>Viet Nam</b> prescribed parameters". This description does not show the difference between "modified atmosphere" and "controlled atmosphere". In the absence of an ISPM 5 definition it would be useful to include a definition of modified atmosphere e.g. A treatment in which the composition of gas is changed in a container with a fixed gas mixture. Once changed there is no control over the process and the gas composition changes in the container due to activities such as product respiration. <i>Category : TECHNICAL</i>
166	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>PPPO</b> This description does not show the difference between "modified atmosphere" and "controlled atmosphere". In the absence of an ISPM 5 definition it would be useful to include a definition of modified atmosphere e.g. A treatment in which the composition of gas is changed in a container with a fixed gas mixture. Once changed there is no control over the process and the gas composition changes in the container due to activities such as product respiration.

				<i>Category : TECHNICAL</i>
167	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>United States of America</b> All controlled atmosphere treatments are modified atmosphere but not all modified atmosphere treatments are controlled atmosphere. For example, a sealed bag is a modified but not controlled atmosphere. The root of it is a continuous treatment or single instance treatment. Thus, clear distinction needs to be included in the text between controlled atmospheres and modified atmospheres. Also, see general comment about the definition for MAs that perhaps can explain these differences.  <i>Category : SUBSTANTIVE</i>
168	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>APPPC</b> 31) New Zealand (4 Sep 2018 6:33 AM) Propose that when the TPG next reviews ISPM 5 that a definition of modified or controlled atmosphere is considered.  <i>Category : TECHNICAL</i>
169	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>APPPC</b> (32) New Zealand (4 Sep 2018 6:36 AM) Re. "prescribed parameters". This description does not show the difference between "modified atmosphere" and "controlled atmosphere". In the absence of an ISPM 5 definition it would be useful to include a definition of modified atmosphere e.g. A treatment in which the composition of gas is changed in a container with a fixed gas mixture. Once changed there is no control over the process and the gas composition changes in the container due to activities such as product respiration.  <i>Category : TECHNICAL</i>
170	47	The term “modified atmosphere” is often used interchangeably with the term “controlled atmosphere”. However, a controlled atmosphere is a modified atmosphere in which the atmospheric components are actively maintained within prescribed parameters.	C	<b>IPPC Regional Workshop Africa</b> The term 'Controlled atmosphere' should be included in the glossary of phytosanitary terms and show that it is the same as 'modified atmosphere' <i>Category : SUBSTANTIVE</i>
<b>IMPACTS ON BIODIVERSITY AND THE ENVIRONMENT</b>				
171	49	Modified atmospheres may be used to prevent the introduction and spread of target pests into a regulated area and hence may be beneficial to biodiversity and the environment. The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions, <a href="#">which deplete ozone</a> . While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.	P	<b>Canada</b> Additional clarity. <i>Category : TECHNICAL</i>
172	49	<del>Modified atmospheres may be used to prevent the introduction and spread of target pests into a regulated area and hence may be beneficial to biodiversity and the</del>	P	<b>Gambia</b>  <i>Category : SUBSTANTIVE</i>

		<del>environment. The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO<sub>2</sub> or low O<sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment. The use of modified atmosphere would help to reduce methyl bromide emissions however totally replacing modified atmosphere treatment for methyl bromide would incur cost to some exporters who lack the infrastructure to conduct such a complex treatment.</del>		
173	49	Modified atmospheres may be used to prevent the introduction and spread of <del>target pests into a regulated area</del> <u>pests</u> and hence may be beneficial to <del>biodiversity and the environment</del> <u>biodiversity</u> . The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible <del>impacts on biodiversity and the environment</del> <u>environmental impacts</u> .	P	<b>European Union</b> Better wording (and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure"). <i>Category : EDITORIAL</i>
174	49	Modified atmospheres may be used to prevent the introduction and spread of <del>target pests into a regulated area</del> <u>pests</u> and hence may be beneficial to <del>biodiversity and the environment</del> <u>biodiversity</u> . The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible <del>impacts on biodiversity and the environment</del> <u>environmental impacts</u> .	P	<b>EPPO</b> Better wording (and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure"). <i>Category : EDITORIAL</i>
175	49	Modified atmospheres may be used to prevent the introduction and spread of target pests into a regulated area and hence may be beneficial to biodiversity and the environment. The use of modified atmosphere treatments as <del>a replacement an alternative</del> <u>an alternative</u> for methyl bromide fumigation provides an additional benefit to the <del>environment by reducing methyl bromide emissions</del> <u>environment</u> . While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.	P	<b>United States of America</b> Methyl bromide will be phasing out but it is unlikely to be completely replaced for phytosanitary purposes in the near future. Other fumigants can still prove to be harmful to the environment in different ways, without depleting ozone. <i>Category : TECHNICAL</i>
176	49	Modified atmospheres may be used to prevent the introduction and spread of target pests into a regulated area and hence may be beneficial to biodiversity and the environment. The use of <del>modified atmosphere treatments</del> <u>MAPs</u> as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.	P	<b>IPPC Regional Workshop Africa</b> <i>Category : SUBSTANTIVE</i>
177	49	Modified atmospheres may be used to prevent the introduction and spread of target pests into a regulated area and hence may be beneficial to biodiversity and the environment. The use of modified atmosphere treatments as a <del>replacement</del>	P	<b>Costa Rica</b> the use of modified atmosphere can be used as another alternative to prevent the introduction of pests but this would not replace the use of methyl bromide

		<del>alternative</del> for methyl bromide fumigation <del>provides-could provide</del> an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.		<i>Category : TECHNICAL</i>
178	49	Modified atmospheres may be used to prevent the introduction and spread of target <del>regulated</del> pests into <del>a-regulated-an</del> area and hence may be beneficial to biodiversity and the environment. The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.	P	<b>Argentina</b> Treatments as phytosanitary measures are used for target regulated pests, to prevent their introduction into an area. <i>Category : TECHNICAL</i>
179	49	Modified atmospheres may be used to prevent the introduction and spread of target <del>regulated</del> pests into <del>a-regulated-an</del> area and hence may be beneficial to biodiversity and the environment. The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.	P	<b>Uruguay</b> Treatments as phytosanitary measures are used for target regulated pests, to prevent their introduction into an area. <i>Category : TECHNICAL</i>
180	49	Modified atmospheres may be used to prevent the introduction and spread of target <del>regulated</del> pests into <del>a-regulated-an</del> area and hence may be beneficial to biodiversity and the environment. The use of modified atmosphere treatments as a replacement for methyl bromide fumigation provides an additional benefit to the environment by reducing methyl bromide emissions. While high CO <sub>2</sub> or low O <sub>2</sub> atmospheres may be harmful, in this application they have negligible impacts on biodiversity and the environment.	P	<b>COSAVE</b> Treatments as phytosanitary measures are used for target regulated pests, to prevent their introduction into an area. <i>Category : TECHNICAL</i>
181	49	Las atmósferas modificadas podrán usarse para prevenir la introducción y la dispersión de plagas objetivo en un área reglamentada y, por tanto, podrán ser beneficiosas para la biodiversidad y el medio ambiente. El uso de tratamientos en atmósfera modificada como <del>sustitutos de alternativa a</del> la fumigación con bromuro de metilo <del>proporciona-podría proporcionar</del> un beneficio adicional para el medio ambiente al reducir las emisiones de bromuro de metilo. Si bien las atmósferas con contenido alto de CO <sub>2</sub> o contenido bajo de O <sub>2</sub> pueden ser dañinas, en esta aplicación sus repercusiones en la biodiversidad y el medio ambiente son insignificantes.	P	<b>Costa Rica</b> mayor claridad  <i>Category : TECHNICAL</i>
<b>1. Treatment Objective</b>				
182	52	The objective of using a modified atmosphere as a phytosanitary measure is to achieve <u>target</u> pest mortality at a specified efficacy.	P	<b>Viet Nam</b> Add "target" in front of "pest" as efficacy needs to describe the response of a specific organism to a treatment. Also, this would



				align with ISPM 28 Phytosanitary treatments for regulated pests. And to include specific treatment schedules of target pests and commodities in ISPM 28 as annexes. <i>Category : TECHNICAL</i>
183	52	The objective of using a modified atmosphere as a phytosanitary measure is to achieve <u>target</u> pest mortality at a specified efficacy.	P	<b>Korea, Republic of</b> Add "target" in front of "pest" as efficacy needs to describe the response of a specific organism to a treatment. Also, this would align with ISPM 28 Phytosanitary treatments for regulated pests. And to include specific treatment schedules of target pests and commodities in ISPM 28 as annexes. <i>Category : TECHNICAL</i>
184	52	The objective of using a modified atmosphere as a phytosanitary measure is to achieve <u>desired/ total target</u> pest mortality at a specified efficacy.	P	<b>PPPO</b> inclusion of 'desired/total' in pest mortality and "target" pest as efficacy needs to describe the response of a specific organism to a treatment. Also, this would align with ISPM 28 Phytosanitary treatments for regulated pests. <i>Category : SUBSTANTIVE</i>
185	52	The objective of using a modified atmosphere as a phytosanitary measure is to achieve pest mortality at a specified efficacy.	C	<b>PPPO</b> clarification on "specified" <i>Category : SUBSTANTIVE</i>
186	52	The objective of using a modified atmosphere as a phytosanitary measure is to achieve <u>pest-target pests</u> mortality at a specified efficacy.	P	<b>China</b> Adding "target" before "pest" is consistent with ISPM28 plant quarantine measures. <i>Category : SUBSTANTIVE</i>
187	52	The objective of using a modified atmosphere <u>treatment</u> as a phytosanitary measure is to achieve pest mortality at a specified efficacy.	P	<b>Argentina</b> For consistency. <i>Category : TECHNICAL</i>
188	52	The objective of using a modified atmosphere <u>treatment</u> as a phytosanitary measure is to achieve pest mortality at a specified efficacy.	P	<b>Uruguay</b> For consistency <i>Category : TECHNICAL</i>
189	52	The objective of using a modified atmosphere <u>treatment</u> as a phytosanitary measure is to achieve pest mortality at a specified efficacy.	P	<b>COSAVE</b> For consistency. <i>Category : TECHNICAL</i>
<b>2. Treatment Application</b>				
190	53	<b>2. Treatment Application</b>	C	<b>Philippines</b> Cite commodities or specific cases and target pests wherein modified atmosphere treatment is applicable. A Guide Table may be provided as an annex. <i>Category : SUBSTANTIVE</i>
191	54	Modified atmosphere treatments for phytosanitary use may be applied before export, <del>or</del> during transport, or at the point of entry under suitable conditions of confinement.	P	<b>European Union</b> Better English. <i>Category : EDITORIAL</i>
192	54	Modified atmosphere <u>treatment is undertaken by treatment providers (e.g. companies or individuals) in a treatment facility.</u> <u>Modified atmosphere</u> treatments for phytosanitary use may be applied before export, or during transport, or at the point of entry under suitable conditions of confinement.	P	<b>European Union</b> This sentence was adapted from the paragraph 56 of the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure" because it gives interesting information

				and is relevant for modified atmosphere treatments (see paragraphs 72 and 84). <i>Category : TECHNICAL</i>
193	54	Modified atmosphere <u>treatment is undertaken by treatment providers (e.g. companies or individuals) either in a treatment facility or at other locations (e.g. cargo ship holds and warehouses).</u>  <u>Modified atmosphere</u> treatments for phytosanitary use may be applied before export, <del>or</del> during transport, or at the point of entry under suitable conditions of confinement.	P	<b>EPPO</b> This sentence was adapted from the paragraph 56 of the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure" because it gives interesting information and is relevant for modified atmosphere treatments (see paragraphs 72 and 84).  Better English. <i>Category : EDITORIAL</i>
194	54	<del>Modified atmosphere treatments</del> <u>MAPs</u> for phytosanitary use may be applied before export, or during transport, or at the point of entry under suitable conditions of confinement.	P	<b>IPPC Regional Workshop Africa</b>  <i>Category : SUBSTANTIVE</i>
195	54	Modified atmosphere treatments for phytosanitary use may be applied before export, or during transport, or at the point of entry under suitable conditions of confinement.	C	<b>Mauritius</b> Treatment Application  For this section, flow diagrams would have been useful  <i>Category : TECHNICAL</i>
196	54	Modified atmosphere treatments <del>for phytosanitary use</del> may be applied before export, or during transport, or at the point of entry under suitable conditions of confinement.	P	<b>Argentina</b> For consistency and to avoid redundancy. <i>Category : EDITORIAL</i>
197	54	Modified atmosphere treatments <del>for phytosanitary use</del> may be applied before export, or during transport, or at the point of entry under suitable conditions of confinement.	P	<b>Uruguay</b> For consistency and to avoid redundancy <i>Category : EDITORIAL</i>
198	54	Modified atmosphere treatments <del>for phytosanitary use</del> may be applied before export, or during transport, or at the point of entry under suitable conditions of confinement.	P	<b>COSAVE</b> For consistency and to avoid redundancy. <i>Category : EDITORIAL</i>
199	54	Los tratamientos en atmósfera modificada para uso fitosanitario podrán aplicarse, <del>en condiciones adecuadas de confinamiento</del> , antes de la exportación, durante el transporte o en el punto de <del>entrada</del> <u>entrada manteniendo las condiciones adecuadas de confinamiento</u> .	P	<b>OIRSA</b> Mejorar redacción <i>Category : TECHNICAL</i>
200	54	Los tratamientos en atmósfera <del>modificada para uso fitosanitario</del> <u>modificada</u> podrán aplicarse, <del>en condiciones adecuadas de confinamiento</del> , antes de la exportación, durante el transporte o en el punto de <del>entrada</del> <u>entrada en condiciones adecuadas de confinamiento</u> .	P	<b>Costa Rica</b> r consistencia con la versión en inglés <i>Category : TECHNICAL</i>
201	54	Los tratamientos en atmósfera modificada para uso fitosanitario podrán aplicarse, <del>en condiciones adecuadas de confinamiento</del> , antes de la exportación, durante el transporte o en el punto de entrada.	P	<b>Guatemala</b>  <i>Category : EDITORIAL</i>

202	55	Parameters to consider when implementing <u>modified atmosphere</u> treatments include:	P	<b>Canada</b> For clarity <i>Category : EDITORIAL</i>
203	55	Parameters to consider when implementing treatments include:	C	<b>PPPO</b> consider the inclusion of products or articles suitable for this treatments <i>Category : SUBSTANTIVE</i>
204	55	Parameters to consider when implementing treatments include:	C	<b>United States of America</b> Among other factors, the following that may affect the treatment: air flow, ramp-up time, instrumentation standards, commodity type being treated, porosity, condition of the commodity (i.e. ripeness, wetness of the surface); these are important parameters for this treatment type and need to be considered.  <i>Category : TECHNICAL</i>
205	56	atmospheric gas concentrations, as influenced by the conditions of the enclosure <del>and the commodity being treated</del> (i.e. load factor, leakage, sorption, respiration)  <u>-the commodity being treated</u>	P	<b>IPPC Regional Workshop Africa</b>  <i>Category : TECHNICAL</i>
206	57	air and commodity temperature  <u>- the pest concerned</u>	P	<b>IPPC Regional Workshop Africa</b>  <i>Category : TECHNICAL</i>
207	58	humidity	C	<b>Viet Nam</b> add the effect of humidity to the treatment in the paragraphs afterwards is necessary <i>Category : SUBSTANTIVE</i>
208	58	humidity <u>the effect of humidity to the treatmen</u>	P	<b>China</b> It is necessary to add the effect of humidity to the treatment in the paragraphs afterwards. <i>Category : SUBSTANTIVE</i>
209	58	<del>humidity</del> atmospheric humidity	P	<b>United States of America</b>  <i>Category : TECHNICAL</i>
210	58	humidity	C	<b>Thailand</b> It is necessary to add the effect of humidity to the treatment in the paragraphs afterwards.



				<i>Category : SUBSTANTIVE</i>
211	58	<del>humedad</del> <u>humedad relativa</u>	P	<b>OIRSA</b> Término correcto <i>Category : TECHNICAL</i>
212	58	<del>humedad</del> <u>humedad relativa</u>	P	<b>Costa Rica</b> Término correcto <i>Category : TECHNICAL</i>
213	58	<del>humedad</del> <u>humedad relativa</u>	P	<b>Guatemala</b>  <i>Category : EDITORIAL</i>
214	59	pressure under which the treatment is applied.	C	<b>China</b> The effect of pressure is not mentioned in the paragraph behind. It would be helpful to add the effect, influence or relationship of atmosphere on the modified atmosphere treatment in appropriate paragraphs. <i>Category : SUBSTANTIVE</i>
215	59	<u>barometric</u> pressure under which the treatment is applied.	P	<b>United States of America</b>  <i>Category : TECHNICAL</i>
216	59	pressure under which the treatment is applied.	C	<b>United States of America</b> Suggest using barometric pressure here <i>Category : TECHNICAL</i>
217	59	pressure under which the treatment is applied. <u>- atmosphere</u>	P	<b>APPPC</b> 14) China (3 Sep 2018 7:57 AM) Please add the effect, influence or relationship of atmosphere on the modified atmosphere treatment in appropriate paragraphs. <i>Category : SUBSTANTIVE</i>
218	59	pressure ( <u>atmospheric pressure</u> ) under which the treatment is applied.	P	<b>APPPC</b> 92) APPPC (11 Sep 2018 3:01 AM) Please add the effect, influence or relationship of pressure/atmospheric pressure on the modified atmosphere treatment in appropriate paragraphs. <i>Category : SUBSTANTIVE</i>
219	59	pressure ( <u>atmospheric pressure</u> ) under which the treatment is applied.	P	<b>Thailand</b> Please add the effect, influence or relationship of pressure/atmospheric pressure on the modified atmosphere treatment in appropriate paragraphs. <i>Category : SUBSTANTIVE</i>
220	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, <del>typically for more than a day</del> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>Viet Nam</b> As the adequate treatment time of MA treatment varies depend on gas concentration and kind of pests, "typically for more than a day" is not appropriate. <i>Category : SUBSTANTIVE</i>

221	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, <del>typically for more than a day</del> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>Korea, Republic of</b> As the adequate treatment time of MA treatment varies depend on gas concentration and kind of pests, "typically for more than a day" is not appropriate. <i>Category : SUBSTANTIVE</i>
222	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for <del>an adequate a</del> length of <del>time, typically for more than a day</del> <u>time specified</u> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>PPPO</b> <i>Category : SUBSTANTIVE</i>
223	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, typically for more than a day. An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system. <u>How to deal with the problem when the gas concentration cannot be maintained?.....</u>	P	<b>China</b> It is possible for a container leak of gas concentration during the actual operation, and the operator should be instructed on how to resolve or dispose of the problem. It would be helpful to add "how to deal with the problem when the gas concentration cannot be maintained?" <i>Category : SUBSTANTIVE</i>
224	60	In a modified atmosphere treatment, the lethal <del>level of the</del> atmosphere should be maintained for an adequate length of time, typically for more than a day. An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>Japan</b> <i>Category : EDITORIAL</i>
225	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, <del>typically for more than a day</del> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>Japan</b> As the adequate treatment time of MA treatment varies depend on gas concentration and kind of pests, "typically for more than a day" is not appropriate. This proposed change is supported by APPPC as well as by Japan. <i>Category : SUBSTANTIVE</i>
226	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for <del>an adequate the</del> length of <del>time, typically for more than a day. An enclosure is therefore required to achieve and maintain time prescribed by the lethal atmospheric conditions over the duration of the treatments</del> <u>schedule in an enclosure (i.e. airtight container, chamber, package)</u> . Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>United States of America</b> Duration should not be specified. The duration is dependent upon a number of factors, especially temperature, as well as type of the enclosure. <i>Category : TECHNICAL</i>
227	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, <del>typically for more than a day</del> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>APPPC</b> (4) Japan (2 Sep 2018 10:46 AM) As the adequate treatment time of MA treatment varies depend on gas concentration and kind of pests, "typically for more than a day" is not appropriate. <i>Category : TECHNICAL</i>

228	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, typically for more than a day. An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system, <u>when the gas concentration is not maintained.....</u>	P	<b>APPPC</b> 15) China (3 Sep 2018 8:10 AM) It is possible for a container to leak during the actual operation, and the operator should be instructed on how to resolve or dispose of the situation.  <i>Category : SUBSTANTIVE</i>
229	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, typically for more than a <u>dayday or a stipulated length of time ( to specific the number of days)</u> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>APPPC</b> 25) Singapore (4 Sep 2018 1:39 AM) To provide clarity on the duration of the effective treatment, the number of days or hours should be stipulated. More than a day could mean 1.5 days, 2 or more days. The efficacy of the MA treatment would have been determined much earlier to provide this detail.  <i>Category : SUBSTANTIVE</i>
230	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, <u>typically for more than a day</u> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>APPPC</b> (93) APPPC (11 Sep 2018 3:08 AM) As the adequate treatment time of MA treatment varies depend on gas concentration and kind of pests, "typically for more than a day" is not appropriate.  <i>Category : SUBSTANTIVE</i>
231	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, <u>typically for more than a day</u> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>Thailand</b> As the adequate treatment time of MA treatment varies depend on gas concentration and kind of pests, "typically for more than a day" is not appropriate. <i>Category : SUBSTANTIVE</i>
232	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, typically for more than a day. An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	C	<b>South Africa</b> Suggest replacement of the phrase "typically for more than a day" with "adequate length of time depending on the commodity and target species". It is envisaged that this will make the statement better understandable <i>Category : SUBSTANTIVE</i>
233	60	In a modified atmosphere treatment, the lethal atmosphere should be maintained for an adequate length of time, typically for more than a <u>dayday or a stipulated length of time (specify the number of days)</u> . An enclosure is therefore required to achieve and maintain the lethal atmospheric conditions over the duration of the treatment. Enclosures can be designed as a continuous gas flow system or a static system.	P	<b>Singapore</b> To provide clarity on the duration of the effective treatment, the number of days or hours should be stipulated. More than a day could mean 1.5 days, 2 or 3 days. The efficacy of the MA treatment would have been determined much earlier to provide this detail. <i>Category : SUBSTANTIVE</i>
234	60	En un tratamiento en atmósfera modificada, la atmósfera letal debería mantenerse durante un período de tiempo adecuado, normalmente más de un día. Se requiere, por lo tanto, un recinto <u>que garantice la hermeticidad</u> para alcanzar y mantener las condiciones atmosféricas letales a lo largo de la duración del	P	<b>Colombia</b> Se sugiere la inclusión de frase " que garantice la hermeticidad". Es importante dar relevancia al tema de hermeticidad en el proceso, para garantizar su eficacia. <i>Category : TECHNICAL</i>

		tratamiento. Los recintos se pueden diseñar como sistema de flujo continuo de gas o como sistema estático.		
235	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric <u>of enclosure</u> and the effectiveness of seals at <u>structural connections or</u> joins and entry <del>points</del> <u>points of enclosure</u> , where surface to volume ratio has a major influence.	P	<b>Viet Nam</b> To clarify what for the structural fabric is. The term "entry points" is not appropriate in this context. Add "of enclosures" to clarify the term. <i>Category : SUBSTANTIVE</i>
236	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric <u>of enclosures</u> and the effectiveness of seals at <u>structural connections or</u> joins and entry <del>points</del> <u>points of enclosures</u> , where surface to volume ratio has a major influence.	P	<b>Korea, Republic of</b> To clarify what for the structural fabric is. The term "entry points" is not appropriate in this context. Add "of enclosures" to clarify the term. <i>Category : SUBSTANTIVE</i>
237	61	<del>Maintenance of</del> <u>To maintain</u> the <del>atmosphere at the</del> required gas composition <del>levels depends on being able to compensate for levels.</del> the gas <del>loss-losses</del> from the <del>enclosure</del> <u>enclosure should be compensated.</u> This is influenced by the permeability of the structural fabric and the effectiveness of seals at joins and entry points, where surface to volume ratio has a major influence.	P	<b>European Union</b> Maintenance does not depend on the ability to compensate gas loss. It depends more on hermetic place where treatment is provided. <i>Category : TECHNICAL</i>
238	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric and the effectiveness of seals at joins and <del>entry points</del> <u>openings</u> , where surface to volume ratio has a major influence.	P	<b>European Union</b> Suggestion to use "openings" or "doors" instead of "entry points".  "Openings" is the word used in paragraph 85 of the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  "Doors" is the term used in paragraph 73 of this standard.  "Points of entry" is a Glossary term which has a different meaning. <i>Category : TECHNICAL</i>
239	61	<del>Maintenance of</del> <u>To maintain</u> the <del>atmosphere at the</del> required gas composition <del>levels depends on being able to compensate for levels.</del> the gas <del>loss-losses</del> from the <del>enclosure</del> <u>enclosure should be compensated.</u> This is influenced by the permeability of the structural fabric and the effectiveness of seals at joins and <del>entry points</del> <u>openings</u> , where surface to volume ratio has a major influence.	P	<b>EPPO</b> Suggestion to use "openings" or "doors" instead of "entry points".  "Openings" is the word used in paragraph 85 of the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  "Doors" is the term used in paragraph 73 of this standard.  "Points of entry" is a Glossary term which has a different meaning.  Maintenance does not depend on the ability to compensate gas loss. It depends more on hermetic place where treatment is provided. <i>Category : TECHNICAL</i>

240	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric <u>of enclosures</u> and the effectiveness of seals at <u>structural connections or</u> joins and entry <del>points</del> <u>points of enclosures</u> , where surface to volume ratio has a major influence.	P	<b>Japan</b> To clarify what for the structural fabric is. The term "entry points" is not appropriate in this context. Add "of enclosures" to clarify the term. This proposed change is supported by APPPC as well as by Japan. <i>Category : SUBSTANTIVE</i>
241	61	<del>Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric and the effectiveness of seals at joins and entry points, where surface to volume ratio has a major influence.</del>	P	<b>United States of America</b> Redundant with the above. Suggested deletion. <i>Category : TECHNICAL</i>
242	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric <u>of enclosures</u> and the effectiveness of seals at <u>structural connections or</u> joins and entry <del>points</del> <u>points of enclosures</u> , where surface to volume ratio has a major influence.	P	<b>APPPC</b> (94) APPPC (11 Sep 2018 3:10 AM) To clarify what for the structural fabric is. The term "entry points" is not appropriate in this context. Add "of enclosures" to clarify the term. (5) Japan (2 Sep 2018 10:55 AM) To clarify what for the structural fabric is. The term "entry points" is not appropriate in this context. Add "of enclosures" to clarify the term.  <i>Category : SUBSTANTIVE</i>
243	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural fabric and the effectiveness of seals at joins ( <u>or joints?</u> ) and entry points, where surface to volume ratio has a major influence.	P	<b>IPPC Regional Workshop Africa</b> 'Joins' and 'Joints' are they the same or different in this context? Please explain. <i>Category : TECHNICAL</i>
244	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural <del>fabrie</del> <u>material</u> and the effectiveness of seals at joins and entry points, where surface to volume ratio has a major influence.	P	<b>Argentina</b> To clarify that fabric refers to the materials of the structure. <i>Category : TECHNICAL</i>
245	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural <del>fabrie</del> <u>material</u> and the effectiveness of seals at joins and entry points, where surface to volume ratio has a major influence.	P	<b>Uruguay</b> To clarify that fabric refers to the materials of the structure <i>Category : TECHNICAL</i>
246	61	Maintenance of the atmosphere at the required gas composition levels depends on being able to compensate for the gas loss from the enclosure. This is influenced by the permeability of the structural <del>fabrie</del> <u>materials</u> and the effectiveness of seals at joins and entry points, where surface to volume ratio has a major influence.	P	<b>COSAVE</b> To clarify that fabric refers to the materials of the structure. <i>Category : TECHNICAL</i>
247	61	<del>Para mantener los niveles requeridos de los gases componentes de la atmósfera es necesario poder compensar las pérdidas de gases del recinto. En tal sentido, influye la permeabilidad del tejido estructural y la eficacia de los sellos en</del>	P	<b>OIRSA</b> En línea con la versión en inglés <i>Category : TRANSLATION</i>



		<del>las juntas y los puntos de entrada, donde la relación entre superficie y volumen influye en gran medida.</del> El mantenimiento de la atmósfera con la composición y el nivel de los gases requeridos, es necesario para compensar las pérdidas de gases del recinto. Esto está influenciado por la permeabilidad del tejido estructural y la efectividad de los sellos en las uniones y puntos de entrada, donde la relación superficie-volumen influye en gran medida		
248	61	<del>Para mantener los niveles requeridos de los gases componentes de la atmósfera es necesario poder compensar las pérdidas de gases del recinto. En tal sentido, influye la permeabilidad del tejido estructural y la eficacia de los sellos en las juntas y los puntos de entrada, donde la relación entre superficie y volumen influye en gran medida.</del> El mantenimiento de la atmósfera con la composición y el nivel de los gases requeridos, es necesario para compensar las pérdidas de gases del recinto. Esto está influenciado por la permeabilidad del tejido estructural y la efectividad de los sellos en las uniones y puntos de entrada, donde la relación superficie-volumen influye en gran medida	P	<b>Costa Rica</b> En línea con la versión en inglés Category : <i>TRANSLATION</i>
249	62	Respiration, sorption of atmospheric gases and the packaging of the commodity may result in differential gas concentrations within the enclosure and influence the efficacy of a modified atmosphere treatment. This should be taken into account when applying treatments.	C	<b>PPPO</b> clarity on how we should read this particular point. Clarity on requirements. Category : <i>SUBSTANTIVE</i>
250	62	<del>Respiration, sorption of atmospheric gases and the packaging of the commodity may result in differential gas concentrations within the enclosure and influence the efficacy of a modified atmosphere treatment. This should be taken into account when applying treatments.</del>	P	<b>United States of America</b> Redundant to 55-59. Parameters should be monitored as in section 4. Category : <i>TECHNICAL</i>
251	62	La respiración, la sorción de gases atmosféricos y el embalaje del producto podrán dar lugar a <del>concentraciones</del> diferenciales <u>en las concentraciones</u> de los gases dentro del recinto e influir en la eficacia de un tratamiento en atmósfera modificada. Esto debería tenerse en cuenta al aplicar los tratamientos.	P	<b>OIRSA</b> Términos correctos Category : <i>EDITORIAL</i>
252	62	La respiración, la sorción de gases atmosféricos y el embalaje del producto podrán dar lugar a <u>diferentes</u> concentraciones <del>diferenciales</del> de los gases dentro del recinto e influir en la eficacia de un tratamiento en atmósfera modificada. Esto debería tenerse en cuenta al aplicar los tratamientos.	P	<b>Costa Rica</b> Termino correcto Category : <i>TECHNICAL</i>
253	63	Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del> <u>pest</u> . In general, the lower the temperature, the lower the respiration rate of the <del>organism</del> <u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy. <u>The procedures approved by the NPPO for the application of a treatment should be clearly described in a “treatment protocol”. These procedures should be designed to ensure that the critical parameters stated in the treatment schedule are achieved. They</u>	P	<b>Viet Nam</b> The term “organism” is not used in both ISPMs, ISPM42 “Requirements for the use of temperature treatments as phytosanitary measures” and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. To add a new paragraph specifying requirements related to procedure approved by the NPPO. These may include treatment protocol, contingency procedure and guidance on corrective actions for treatment failures. This addition will bring forward the consistency with ISPM 42 and draft fumigation treatment.

		<u>should also include contingency procedures and guidance on corrective actions for treatment failures or problems with critical treatment parameters.</u>		<i>Category : SUBSTANTIVE</i>
254	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del><u>pest</u>. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del><u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy.</p> <p><u>The procedures approved by the NPPO for the application of a treatment should be clearly described in a “treatment protocol”. These procedures should be designed to ensure that the critical parameters stated in the treatment schedule are achieved. They should also include contingency procedures and guidance on corrective actions for treatment failures or problems with critical treatment parameters.</u></p>	P	<p><b>Korea, Republic of</b> The term “organism” is not used in both ISPMs, ISPM42 “Requirements for the use of temperature treatments as phytosanitary measures” and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. To add a new paragraph specifying requirements related to procedure approved by the NPPO. These may include treatment protocol, contingency procedure and guidance on corrective actions for treatment failures. This addition will bring forward the consistency with ISPM 42 and draft fumigation treatment. <i>Category : SUBSTANTIVE</i></p>
255	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del><u>pest</u>. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del><u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy.</p>	P	<p><b>European Union</b> More precise wording. <i>Category : EDITORIAL</i></p>
256	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del><u>pest</u>. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del><u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy.</p>	P	<p><b>EPPO</b> More precise wording. <i>Category : EDITORIAL</i></p>
257	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. <del>In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.</del></p>	P	<p><b>China</b> It doesn't need to be explained here. <i>Category : SUBSTANTIVE</i></p>
258	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del><u>pest</u>. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del><u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy.</p>	P	<p><b>China</b> The term “organism” is not used in both ISPMs, ISPM42 “Requirements for the use of temperature treatments as phytosanitary measures” and draft ISPM_Fumigation. <i>Category : SUBSTANTIVE</i></p>
259	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. In general, the lower the temperature, the lower the respiration rate of</p>	P	<p><b>China</b> It would be helpful to add the relationship between temperature control and controlled atmosphere treatment. <i>Category : SUBSTANTIVE</i></p>

		the organism and the greater the duration of exposure needed to achieve the required efficacy.  <u>The relationship between temperature control and air conditioning treatment.</u>		
260	63	Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del> <u>pest</u> . In general, the lower the temperature, the lower the respiration rate of the <del>organism</del> <u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy.	P	<b>Japan</b> The term "organism" is not used in both ISPMs, ISPM42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. This proposed change is supported by APPPC as well as by Japan. <i>Category : SUBSTANTIVE</i>
261	63	<del>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.</del>	P	<b>United States of America</b> Redundant to para 55-59. Suggest deleting. <i>Category : TECHNICAL</i>
262	63	Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. <del>In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.</del>	P	<b>APPPC</b> (16) China (3 Sep 2018 8:15 AM) This is the principle of common sense, and it doesn't need to be explained here  <i>Category : SUBSTANTIVE</i>
263	63	Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.	C	<b>APPPC</b> (17) China (3 Sep 2018 8:17 AM) The relationship between temperature control and air conditioning treatment is not explained. Please add content to explain the relationship between temperature control and controlled atmosphere treatment.  <i>Category : SUBSTANTIVE</i>
264	63	Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.  <u>( To include elaboration paragraphs on how and why the remaining 2 parameters ie humidity &amp; pressure should be considered)</u>	P	<b>APPPC</b> (26) Singapore (4 Sep 2018 1:42 AM) Paragraphs 60-63 are intended elaborations of parameters cited in paragraphs 56-59 but currently, there was no mention on humidity or pressure. For consistency, there should be added paragraphs to elaborate on why these 2 parameters are important considerations when implementing MA.  <i>Category : SUBSTANTIVE</i>
265	63	Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del> <u>pests</u> . In general, the lower the temperature, the lower the respiration rate of the <del>organism</del> <u>pest</u> and the greater the duration of exposure needed to achieve the required efficacy.	P	<b>Thailand</b> The term "organism" is not used in both ISPMs, ISPM42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. <i>Category : EDITORIAL</i>



266	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.</p> <p><u>The procedures approved by the NPPO for the application of a treatment should be clearly described in a “treatment protocol”. These procedures should be designed to ensure that the critical parameters stated in the treatment schedule are achieved. They should also include contingency procedures and guidance on corrective actions for treatment failures or problems with critical treatment parameters.</u></p>	P	<p><b>Thailand</b> Thailand would to add a new paragraph specifying requirements related to procedure approved by the NPPO. These may include treatment protocol, contingency procedure and guidance on corrective actions for treatment failures. This addition will bring forward the consistency with ISPM42 and draft fumigation treatment. <i>Category : SUBSTANTIVE</i></p>
267	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target organism. In general, the lower the temperature, the lower the respiration rate of the organism and the greater the duration of exposure needed to achieve the required efficacy.</p> <p><u>Required elaboration paragraphs of how &amp; why remaining 2 parameters-humidity &amp; pressure should be considered.</u></p>	P	<p><b>Singapore</b> Para 60 - 63 are intended elaborations of parameters cited in paragraphs 56 - 59. As such, there should be required elaboration paragraphs of how &amp; why remaining 2 parameters-humidity &amp; pressure should be considered. Currently, there are no explanations on why these 2 parameters are important consideration when implementing MA. <i>Category : SUBSTANTIVE</i></p>
268	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del>pest. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del>pest and the greater the duration of exposure needed to achieve the required efficacy.</p>	P	<p><b>Argentina</b> For consistency. <i>Category : TECHNICAL</i></p>
269	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del>pest. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del>pest and the greater the duration of exposure needed to achieve the required efficacy.</p>	P	<p><b>Uruguay</b> For consistency <i>Category : TECHNICAL</i></p>
270	63	<p>Temperature is a factor in achieving the required efficacy of modified atmosphere treatments, in particular because it affects the respiration rate of the target <del>organism</del>pest. In general, the lower the temperature, the lower the respiration rate of the <del>organism</del>pest and the greater the duration of exposure needed to achieve the required efficacy.</p>	P	<p><b>COSAVE</b> For consistency. <i>Category : TECHNICAL</i></p>
271	63	<p>La temperatura influye en el logro de la eficacia requerida de los tratamientos en atmósfera modificada, en particular porque afecta al ritmo respiratorio <del>del organismo de la plaga</del> objetivo. Por lo general, cuanto más baja sea</p>	P	<p><b>Costa Rica</b> Por consistencia <i>Category : TECHNICAL</i></p>

		la temperatura menor será el ritmo respiratorio <del>del organismo de la plaga</del> y mayor la duración de la exposición necesaria para alcanzar el nivel de eficacia requerido.		
272	63	La temperatura influye en el logro de la eficacia <del>requerida</del> de los tratamientos en atmósfera modificada, en particular porque afecta al ritmo respiratorio <del>del organismo objetivo de la plaga</del> . Por lo general, cuanto más baja sea la temperatura menor será el ritmo respiratorio del organismo y mayor la duración de la exposición necesaria para alcanzar <del>el nivel de eficacia requerido</del> la eficacia.	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>
<b>2.1 Methods for modifying atmospheres</b>				
273	64	<b>2.1 Methods for modifying <del>atmospheres</del>atmosphere</b>	P	<b>European Union</b> It should be singular (see comment EU comment on para 34). <i>Category : EDITORIAL</i>
274	64	<b>2.1 Methods for modifying <del>atmospheres</del>atmosphere</b>	P	<b>EPPO</b> It should be singular (see comment EPPO comment on para 34) <i>Category : EDITORIAL</i>
275	64	<del>2.13</del> <b>Methods for modifying atmospheres</b>	P	<b>APPPC</b> 54) Thailand (5 Sep 2018 12:39 PM) It is more appropriate to change section number 2.1 to 3 as there is only one sub-section under section 2. <i>Category : EDITORIAL</i>
276	64	<del>23.1</del> <b>Methods for modifying atmospheres</b>	P	<b>Thailand</b> It is more appropriate to change section number 2.1 to 3 as there is only one sub-section under section 2. <i>Category : EDITORIAL</i>
277	65	Treatment atmospheres may be modified in the following ways:	C	<b>European Union</b> We propose to add the following item: "use of nitrogen generators to deoxygenize the chamber to achieve the low level of oxygen" if the proposed addition is not already covered by paragraph 66 (adding an inert gas like nitrogen) but is a new application type. The TPPT is invited to clarify this point. <i>Category : TECHNICAL</i>
278	65	Treatment atmospheres may be modified in the following ways:	C	<b>EPPO</b> We propose to add the following item: "use of nitrogen generators to deoxygenize the chamber to achieve the low level of oxygen" if the proposed addition is not already covered by paragraph 66 (adding an inert gas like nitrogen) but is a new application type. The TPPT is invited to clarify this point. <i>Category : TECHNICAL</i>
279	66	changing the proportion of O <sub>2</sub> and CO <sub>2</sub> in the <del>controled</del> atmosphere by adding CO <sub>2</sub> or an inert gas (such as nitrogen) and maintaining this atmosphere	P	<b>Viet Nam</b> prefer to put controlled before atmosphere <i>Category : SUBSTANTIVE</i>

280	66	changing the proportion of O <sub>2</sub> and CO <sub>2</sub> in the atmosphere by adding <del>CO<sub>2</sub> or an inert</del> <del>a gas (such such as nitrogen) CO<sub>2</sub> or nitrogen</del> and maintaining this atmosphere	P	<b>European Union</b> Nitrogen is not an inert gas, a better wording is proposed. <i>Category : EDITORIAL</i>
281	66	changing the proportion of O <sub>2</sub> and CO <sub>2</sub> in the atmosphere by adding <del>CO<sub>2</sub> or an inert</del> <del>a gas (such such as nitrogen) CO<sub>2</sub> or nitrogen</del> and maintaining this atmosphere	P	<b>EPPO</b> Nitrogen is not an inert gas, a better wording is proposed <i>Category : EDITORIAL</i>
282	66	changing the proportion of <del>O<sub>2</sub></del> <del>oxygen (O<sub>2</sub>)</del> and <del>CO<sub>2</sub></del> <del>carbon dioxide (CO<sub>2</sub>)</del> in the atmosphere by adding CO <sub>2</sub> or an inert gas (such as nitrogen) and maintaining this atmosphere	P	<b>Japan</b> Chemical symbol and elemental name are mixed in whole text of this ISPM <i>Category : EDITORIAL</i>
283	66	changing the proportion of O <sub>2</sub> and CO <sub>2</sub> in the atmosphere by adding CO <sub>2</sub> or an inert gas (such as <del>nitrogen) nitrogen</del> ) and maintaining this atmosphere	P	<b>United States of America</b> Nitrogen is not always inert. What about other gases not mentioned here? Please see the general comment section for more. <i>Category : TECHNICAL</i>
284	66	changing the proportion of O <sub>2</sub> and CO <sub>2</sub> in the <del>controlled</del> atmosphere by adding CO <sub>2</sub> or an inert gas (such as nitrogen) and maintaining this atmosphere	P	<b>APPPC</b> 1) Nepal (3 Aug 2018 4:47 AM) <i>Category : SUBSTANTIVE</i>
285	67	converting O <sub>2</sub> to CO <sub>2</sub> by combustion of a hydrocarbon <del>or react with other substances</del>	P	<b>China</b> There are many ways to change oxygen into carbon dioxide. <i>Category : SUBSTANTIVE</i>
286	67	converting O <sub>2</sub> to CO <sub>2</sub> by combustion of a hydrocarbon <del>or react with other substances</del>	P	<b>APPPC</b> 18) China (3 Sep 2018 8:23 AM) There are many ways to change oxygen into carbon dioxide. <i>Category : SUBSTANTIVE</i>
287	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>Viet Nam</b> The term "organism" is not used in both ISPMs, ISPM 42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. <i>Category : SUBSTANTIVE</i>
288	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>Korea, Republic of</b> The term "organism" is not used in both ISPMs, ISPM 42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. <i>Category : SUBSTANTIVE</i>
289	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>European Union</b> More precise term. <i>Category : EDITORIAL</i>
290	68	hermetic or semi-hermetic storage in which the respiration of the commodity and organisms infesting it <del>deplete-depletes</del> the level of O <sub>2</sub> and <del>increase-increases</del> the level of CO <sub>2</sub>	P	<b>European Union</b> English grammar. <i>Category : EDITORIAL</i>

291	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it <del>deplete-depletes</del> the level of O <sub>2</sub> and <del>increase-increases</del> the level of CO <sub>2</sub>	P	<b>EPPO</b> More precise term.  English grammar <i>Category : EDITORIAL</i>
292	68	hermetic or semi-hermetic storage in which the respiration of the commodity and organisms infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	C	<b>Mozambique</b> hermetic or semi-hermetic (should be added to the Glossary of Phytosanitary Terms) <i>Category : TECHNICAL</i>
293	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>Japan</b> The term "organism" is not used in both ISPMs, ISPM42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. This proposed change is supported by APPPC as well as by Japan. <i>Category : SUBSTANTIVE</i>
294	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>APPPC</b> 96) APPPC (11 Sep 2018 3:21 AM) The term "organism" is not used in both ISPMs, ISPM 42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. (7) Japan (2 Sep 2018 5:25 PM) The term "organism" is not used in both ISPMs, ISPM42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. <i>Category : SUBSTANTIVE</i>
295	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>Thailand</b> The term "organism" is not used in both ISPMs, ISPM 42 "Requirements for the use of temperature treatments as phytosanitary measures" and draft ISPM_Fumigation. To ensure consistency with the requirement of both ISPMs. <i>Category : EDITORIAL</i>
296	68	hermetic or semi-hermetic <del>storage in which the respiration should be defined under glossary of the commodity and organisms infesting it deplete the level of</del> <del>Ophytosanitary terms in ISPM5 and increase the level of CO<sub>2</sub></del>	P	<b>IPPC Regional Workshop Africa</b> <i>Category : SUBSTANTIVE</i>
297	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>Argentina</b> For consistency. <i>Category : TECHNICAL</i>
298	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>Uruguay</b> For consistency <i>Category : TECHNICAL</i>
299	68	hermetic or semi-hermetic storage in which the respiration of the commodity and <del>organisms-pests</del> infesting it deplete the level of O <sub>2</sub> and increase the level of CO <sub>2</sub>	P	<b>COSAVE</b> For consistency. <i>Category : TECHNICAL</i>

300	68	almacenamiento hermético o semihermético en el que la respiración del producto y de <del>los organismos-las plagas</del> que lo infestan reduce el nivel de O <sub>2</sub> y aumenta el nivel de CO <sub>2</sub> ;	P	<b>Costa Rica</b> Por consistencia Category : <i>TECHNICAL</i>
<b>3. Enclosures Used for Modified Atmosphere Treatments</b>				
301	70	<b>34. Enclosures Used for Modified Atmosphere Treatments</b>	P	<b>APPPC</b> (55) Thailand (5 Sep 2018 12:39 PM) re-numbering Category : <i>EDITORIAL</i>
302	70	<b>3.4. Enclosures Used for Modified Atmosphere Treatments</b>	P	<b>Thailand</b> re-numbering Category : <i>EDITORIAL</i>
303	71	The <del>enclosure may consist of enclosure</del> , modified atmosphere packaging, <del>or may consist</del> a portable or fixed structure.	P	<b>Viet Nam</b> Category : <i>SUBSTANTIVE</i>
304	71	The enclosure may consist of modified atmosphere packaging, or a portable or fixed structure. <u>An enclosure used as a modified atmosphere packaging is a protective atmosphere packaging, which involves either actively or passively controlling or modifying the atmosphere surrounding the commodity within a package made of various types and/or combinations of films.</u>	P	<b>Viet Nam</b> Add new sentence to explain "packaging" used as enclosure for modified atmosphere. Category : <i>SUBSTANTIVE</i>
305	71	The enclosure may consist of <del>modified atmosphere</del> packaging, or a portable or fixed structure.	P	<b>European Union</b> It is not clear what is 'modified atmosphere packaging', it is proposed to delete "modified atmosphere". Category : <i>EDITORIAL</i>
306	71	The enclosure may consist of <del>modified atmosphere</del> packaging, or a portable or fixed structure.	P	<b>EPPO</b> It is not clear what is 'modified atmosphere packaging', it is proposed to delete "modified atmosphere". Category : <i>EDITORIAL</i>
307	71	The enclosure <u>used for modified atmosphere treatments</u> may consist of <del>modified atmosphere-a</del> packaging, or a portable or fixed structure. <u>An enclosure used as a modified atmosphere packaging is a protective atmosphere packaging, which involves either actively or passively controlling or modifying the atmosphere surrounding the commodity within a package made of various types and/or combinations of films.</u>	P	<b>Japan</b> Add new sentence to explain "packaging" used as enclosure for modified atmosphere. Category : <i>SUBSTANTIVE</i>
308	71	The enclosure may consist of <del>modified atmosphere packaging, or</del> a portable or fixed structure.	P	<b>APPPC</b> (56) Thailand (5 Sep 2018 12:40 PM) Modified atmosphere packaging should not be included in this standard because there is no specific requirement referred to and normally modified atmosphere packaging is intended to prolong shelf-life of a product rather than for pest risk management.

				<i>Category : SUBSTANTIVE</i>
309	71	The enclosure may consist of <del>modified atmosphere packaging, or a</del> portable or fixed structure.	P	<b>Thailand</b> Modified atmosphere packaging should not be included in this standard because there is no specific requirement referred to and normally modified atmosphere packaging is intended to prolong shelf-life of a product rather than for pest risk management. <i>Category : SUBSTANTIVE</i>
310	72	Enclosures that are fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship <del>holds</del> ) <del>are specifically holds</del> ) should be designed and constructed to maintain the parameters of the treatment. Features of specifically designed and constructed enclosures include:	P	<b>European Union</b> Enclosures are not always specifically designed. <i>Category : SUBSTANTIVE</i>
311	72	Enclosures that are fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship <del>holds</del> ) <del>are specifically holds</del> ) should be designed and constructed to maintain the parameters of the treatment. Features of specifically designed and constructed enclosures include:	P	<b>EPPO</b> Enclosures not always are specifically designed. They may be specifically designed. <i>Category : SUBSTANTIVE</i>
312	72	Enclosures that are fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship <del>holds</del> ) <del>are holds</del> ) are specifically designed and constructed to maintain the parameters of the treatment. Features of specifically designed and constructed enclosures include:	P	<b>PPPO</b> <i>Category : EDITORIAL</i>
313	72	Enclosures that are fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship <del>holds</del> ) <del>are holds</del> ) are specifically designed and constructed to maintain the parameters of the treatment. Features of specifically designed and constructed enclosures include:	P	<b>NEPPO</b> <i>Category : EDITORIAL</i>
314	72	Los recintos que son estructuras fijas (por ejemplo, las cámaras de vacío, los contenedores, los almacenes o las bodegas de buques de carga) están diseñados y construidos específicamente para mantener los parámetros del tratamiento. Los recintos <del>diseñados y construidos específicamente tanto portátiles como fijos</del> tienen las características siguientes:	P	<b>Costa Rica</b> Aclarar que existen recinto fijos y portátiles y que ambos deben cumplir con las características que se describen <i>Category : EDITORIAL</i>
315	73	gas tight doors <del>the gas tight valves</del>	P	<b>China</b> In modified atmosphere packaging bags, the valves are used to close or seal. <i>Category : SUBSTANTIVE</i>
316	73	gas tight <del>doors</del> doors valve	P	<b>APPPC</b> (19) China (3 Sep 2018 8:25 AM) In modified atmosphere packaging bags, use The valves is use to close or seal. <i>Category : SUBSTANTIVE</i>
317	75	temperature control	C	<b>China</b> Please add the relationship between temperature control and modified atmosphere treatment. <i>Category : SUBSTANTIVE</i>



318	77	systems to alert operators when there is a treatment failure	C	<b>PPPO</b> Consider placing this bullet point at the end of the list, as this is a monitoring feature of the system rather than a control feature. All other features are operational controls for the treatment and therefore it would be more logical to have this last in the list. <i>Category : TECHNICAL</i>
319	77	systems to alert operators when there is a treatment failure	C	<b>APPPC</b> 34) New Zealand (4 Sep 2018 6:39 AM) Consider moving this bullet point to the end of the list as this is a monitoring feature of the system rather than a control feature. All other features are operational controls for the treatment and therefore it would be more logical to have this last in the list. <i>Category : EDITORIAL</i>
320	79	exhaust systems <u>- humidity.</u>	P	<b>United States of America</b> Humidity is very important to control. Many species will either greatly reduce respiration or metabolism under water deficit conditions. <i>Category : TECHNICAL</i>
321	80	Modified atmosphere treatments that rely on <del>positive pressure</del> the introduction of inert gases to <u>reduce oxygen levels to</u> achieve anoxic conditions may use non-gas-tight chambers or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment use.	P	<b>European Union</b> The first sentence is confusing. New wording is proposed. To be checked by the TPPT experts. <i>Category : EDITORIAL</i>
322	80	Modified atmosphere treatments that rely on <del>positive pressure</del> the introduction of inert gases to <u>reduce oxygen levels to</u> achieve anoxic conditions may use non-gas-tight chambers or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment use.	P	<b>EPPO</b> The first sentence is confusing. New wording is proposed. To be checked by the TPPT experts. <i>Category : EDITORIAL</i>
323	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight chambers or use enclosures that <del>were are</del> not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that <del>were are</del> not specifically designed for modified atmosphere treatment use.	P	<b>Japan</b> <i>Category : EDITORIAL</i>
324	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight chambers or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment use. <u>Elaborate on the importance of pressure.</u>	P	<b>APPPC</b> 48) Singapore (5 Sep 2018 12:32 PM) Similar to earlier comment to paragraph 63, there should be more information to be provided on the importance of pressure to the MA treatment for better clarity. <i>Category : SUBSTANTIVE</i>



325	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight chambers or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention <del>to pressure</del> should be <del>made</del> <u>paid to pressure</u> when using enclosures that were not specifically designed for modified atmosphere treatment use.	P	<b>IPPC Regional Workshop Africa</b>  <i>Category : EDITORIAL</i>
326	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight chambers or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment <del>use</del> <u>use for (to elaborate on the why)</u>	P	<b>Singapore</b> Similar to earlier comment to paragraph 63, there should be more information to be provided on the importance of pressure to the MA treatment for better clarity. <i>Category : SUBSTANTIVE</i>
327	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight <del>chambers-enclosures</del> or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment use.	P	<b>Argentina</b> For consistency. <i>Category : TECHNICAL</i>
328	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight <del>chambers-enclosures</del> or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment use.	P	<b>Uruguay</b> For consistency <i>Category : TECHNICAL</i>
329	80	Modified atmosphere treatments that rely on positive pressure of inert gases to achieve anoxic conditions may use non-gas-tight <del>chambers-enclosures</del> or use enclosures that were not specifically designed for modified atmosphere treatments. Particular attention to pressure should be made when using enclosures that were not specifically designed for modified atmosphere treatment use.	P	<b>COSAVE</b> For consistency. <i>Category : TECHNICAL</i>
<b>4. Measuring Treatment Parameters</b>				
330	81	<b>45. Measuring Treatment Parameters</b>	P	<b>APPPC</b> (57) Thailand (5 Sep 2018 12:40 PM) re-numbering  <i>Category : EDITORIAL</i>
331	81	<b>4 5. Measuring Treatment Parameters</b>	P	<b>Thailand</b>  <i>Category : EDITORIAL</i>
332	82	Critical parameters of the treatment should be measured at regular intervals to ensure that <del>it is conducted properly</del> <u>tired treatment parameters have been archived throughout the enclosed</u> to mitigate the risk of target pests in regulated articles. The	P	<b>Viet Nam</b> The measurement of the critical parameters is more than to Ensure that it is conducted properly. It is to Ensure that the required parameters are maintained throughout the enclosure for the MA treatment to be effective.

		crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.		<i>Category : EDITORIAL</i>
333	82	Critical parameters of the treatment should be measured <u>and recored</u> at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>Viet Nam</b> to add the term "recorded" to further specify the action needed for verification. <i>Category : SUBSTANTIVE</i>
334	82	Critical parameters of the treatment should be measured <u>&amp; recorded</u> at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>Korea, Republic of</b> To add the term "recorded" to further specify the action needed for verification. <i>Category : SUBSTANTIVE</i>
335	82	Critical parameters of the treatment should be measured at regular intervals to ensure that <del>it is conducted properly to mitigate the risk of target pests in regulated articles</del> <u>treatment schedule is met</u> . The <del>crucial-critical</del> parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>European Union</b> More appropriate wording. <i>Category : TECHNICAL</i>
336	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure. <u>All equipment used for measuring treatment parameters should be calibrated according to the manufacturer's instructions and, where applicable, NPPO specifications.</u>	P	<b>European Union</b> It is important to make it clear that when NPPOs have specifications, these should be followed (consistency with paragraph 88 of the draft ISPM on the "Requirements for the use of fumigation as a phytosanitary measure").  Not to repeat the same calibration requirements for gas concentration and temperature (paragraphs 84 and 86), it is suggested to give these requirements in an umbrella paragraph before subsections 4.1 and 4.2. (This proposal is also consistent with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".)  <i>Category : TECHNICAL</i>
337	82	Critical parameters of the treatment should be measured at regular intervals to ensure that <del>it is conducted properly to mitigate the risk of target pests in regulated articles</del> <u>treatment schedule is met</u> . The <del>crucial-critical</del> parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.  <u>All equipment used for measuring treatment parameters should be calibrated according to the manufacturer's instructions and, where applicable, NPPO specifications.</u>	P	<b>EPPO</b> It is important to make it clear that when NPPOs have specifications, these should be followed (consistency with paragraph 88 of the draft ISPM on the "Requirements for the use of fumigation as a phytosanitary measure").  Not to repeat the same calibration requirements for gas concentration and temperature (paragraphs 84 and 86), it is suggested to give these requirements in an umbrella paragraph before subsections 4.1 and 4.2. (This proposal is also consistent with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".)  More appropriate wording. <i>Category : TECHNICAL</i>

338	82	Critical parameters of the treatment should be measured at <del>regular</del> <u>appropriate</u> intervals to ensure that it is conducted properly to <del>mitigate</del> <u>manage</u> the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>PPPO</b> Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word "mitigate" does not appear in other treatment standards and may not translate well to other language. Suggest to replace with "manage" to align with ISPM 5 Glossary of phytosanitary terms terminology. <i>Category : TECHNICAL</i>
339	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to <del>mitigate</del> <u>manage</u> the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>China</b> The word "mitigate" does not appear in other treatment standards and may not translate well to other language. Suggest to replace with "manage" to align with ISPM 5 Glossary of phytosanitary terms terminology. <i>Category : EDITORIAL</i>
340	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure. <u>These crucial parameters should be recorded and archived.</u>	P	<b>Libya</b>  <i>Category : SUBSTANTIVE</i>
341	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, <del>temperature</del> <u>temperature, pressure, relative humidity or dew point</u> , and duration of exposure.	P	<b>United States of America</b> Clarifying other important parameters. <i>Category : TECHNICAL</i>
342	82	Critical parameters of the treatment should be measured at <del>regular</del> <u>appropriate</u> intervals to ensure that it is conducted properly to <del>mitigate</del> <u>manage</u> the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>APPPC</b> 35) New Zealand (4 Sep 2018 6:40 AM) Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word "mitigate" does not appear in other treatment standards and may not translate well to other language. Suggest to replace with "manage" to align with ISPM 5 Glossary of phytosanitary terms terminology. <i>Category : TECHNICAL</i>
343	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it <del>is conducted properly</del> <u>required treatment parameters have been achieved throughout the enclosure</u> to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>APPPC</b> 49) Singapore (5 Sep 2018 12:35 PM) The measurement of the critical parameters is more than to Ensure that it is conducted properly. It is to Ensure that the required parameters are maintained throughout the enclosure for the MA treatment to be effective. <i>Category : EDITORIAL</i>

344	82	Critical parameters of the treatment should be measured <u>and recorded</u> at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>APPPC</b> (97) APPPC (11 Sep 2018 3:49 AM) to add the term "recorded" to further specify the action needed for verification. 60) Thailand (5 Sep 2018 12:41 PM) Thailand would like to add the term "recorded" to further specify the action needed for verification.  <i>Category : SUBSTANTIVE</i>
345	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure. <u>These crucial parameters should be recorded and archived.</u>	P	<b>NEPPO</b>  <i>Category : SUBSTANTIVE</i>
346	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of <del>exposure</del> <u>exposure of the commodity</u>	P	<b>IPPC Regional Workshop Africa</b> Add 'commodity' for clarity. <i>Category : TECHNICAL</i>
347	82	Critical parameters of the treatment should be measured <u>and recorded</u> at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>Thailand</b> Thailand would like to add the term "recorded" to further specify the action needed for verification. <i>Category : SUBSTANTIVE</i>
348	82	Critical parameters of the treatment should be measured at regular intervals to ensure that <del>it is conducted properly</del> <u>the required treatment parameters have been achieved throughout the enclosure</u> to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>Singapore</b> The measurement of the critical parameters is more than to ensure that it is conducted properly. It is to ensure that the required parameters are maintained throughout the enclosure for the MA treatment to be effective. <i>Category : SUBSTANTIVE</i>
349	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure. <u>Sensors used to measure the critical parameters of the modified atmosphere treatments should be calibrated according to the manufacturer's instructions.</u>	P	<b>Argentina</b> New paragraph moved and modified from paragraphs 84 and 86 to avoid redundancy. <i>Category : TECHNICAL</i>
350	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure.	P	<b>Uruguay</b> New paragraph moved and modified from paragraphs 84 and 86 to avoid redundancy. <i>Category : TECHNICAL</i>

		<u>Sensors used to measure the critical parameters of the modified atmosphere treatments should be calibrated according to the manufacturer's instructions.</u>		
351	82	Critical parameters of the treatment should be measured at regular intervals to ensure that it is conducted properly to mitigate the risk of target pests in regulated articles. The crucial parameters for modified atmospheres are typically O <sub>2</sub> and CO <sub>2</sub> concentrations, temperature and duration of exposure. <u>Sensors used to measure the critical parameters of the modified atmosphere treatments should be calibrated according to the manufacturer's instructions.</u>	P	<b>COSAVE</b> New paragraph moved and modified from paragraphs 84 and 86 to avoid redundancy. <i>Category : TECHNICAL</i>
352	82	Los parámetros críticos del tratamiento deberían medirse a intervalos regulares <u>con los instrumentos adecuados (temperatura, gas y humedad)</u> para garantizar que el tratamiento se realiza de manera adecuada para mitigar el riesgo de plagas objetivo en los artículos reglamentados. Los parámetros esenciales para las atmósferas modificadas son normalmente las concentraciones de O <sub>2</sub> y CO <sub>2</sub> , la temperatura y la duración de la exposición.	P	<b>OIRSA</b> Para ser más específico <i>Category : TECHNICAL</i>
<b>4.1 Measuring gas concentration</b>				
353	83	<b>4.1 Measuring gas concentration</b>	P	<b>APPPC</b> (58) Thailand (5 Sep 2018 12:40 PM) re-numbering <i>Category : EDITORIAL</i>
354	83	<b>4.1 Measuring gas concentration</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
355	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors <u>and data recording equipment</u> used to measure gases are calibrated according to the manufacturer's instructions.	P	<b>Viet Nam</b> Sensors and data recording equipment are calibrated. <i>Category : SUBSTANTIVE</i>
356	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.  <u>The equipment used to measure gas concentrations should have an adequate accuracy (e.g. +-5% of the gas concentrations to be achieved throughout the treatment).</u>	P	<b>European Union</b> This requirement is given in the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure" and it should be given in this standard if it appears to be technically correct (TPPT to be consulted). <i>Category : TECHNICAL</i>
357	84	<del>A</del>	P	<b>European Union</b> The first sentence is redundant with the first sentence of the paragraph 82.

		<del>Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.</del>		<p>The requirement of the second sentence to verify the calibration "before each treatment" is too stringent and not consistent with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". This sentence could be deleted because not to repeat the same calibration requirements for gas concentration and temperature, it is suggested to give these requirements in an umbrella paragraph before subsections 4.1 and 4.2.</p> <p><i>Category : TECHNICAL</i></p>
358	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.	C	<p><b>EPPO</b></p> <p>We suggest adding: "The equipment used to measure gas concentrations should have an adequate accuracy (e.g. +/-5% of the gas concentrations to be achieved throughout the treatment)."</p> <p>This requirement is given in the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure" and it should be given in this standard if it appears to be technically correct (TPPT to be consulted).</p> <p><i>Category : TECHNICAL</i></p>
359	84	<del>Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.</del>	P	<p><b>EPPO</b></p> <p>The first sentence is redundant with the first sentence of the paragraph 82.</p> <p>The requirement of the second sentence to verify the calibration "before each treatment" is too stringent and not consistent with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". This sentence could be deleted because not to repeat the same calibration requirements for gas concentration and temperature, it is suggested to give these requirements in an umbrella paragraph before subsections 4.1 and 4.2.</p> <p><i>Category : TECHNICAL</i></p>
360	84	<u>Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated in accordance with the manufacturer's instructions and international standards or appropriate national standards.</u> Atmospheric gas concentrations should be measured at <u>regular appropriate</u> intervals during modified atmosphere treatments. <del>Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.</del>	P	<p><b>PPPO</b></p> <p>Revised change by New Zealand on 4 Sep 2018 5:50</p> <ul style="list-style-type: none"> <li>-To align with wording in ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures.</li> <li>-Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word 'appropriate' aligns better with terminology in ISPM 28 Phytosanitary treatments for regulated pests and ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures.</li> <li>-Suggest that sentence re calibration is first given that calibration should occur before monitoring activities.</li> </ul> <p><i>Category : TECHNICAL</i></p>



361	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions- <u>how to deal with when the concentration of gas exceeds the requirements?</u>	P	<b>China</b> There is a possibility that concentration of the gas may exceed the requirement. <i>Category : SUBSTANTIVE</i>
362	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.	C	<b>China</b> In order to ensure the uniform distribution of air concentration in the treatment.It is necessary to define the number of concentration points in unit volume and the maximum concentration difference. <i>Category : SUBSTANTIVE</i>
363	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors <u>and data recording equipment</u> used to measure gases are calibrated according to the manufacturer's instructions.	P	<b>Japan</b> In addition to sensors, data recording equipment should be calibrated. <i>Category : SUBSTANTIVE</i>
364	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.	C	<b>APPPC</b> 20) China (3 Sep 2018 8:38 AM) In order to ensure the uniform distribution of air concentration in the treatment.It is necessary to define the number of concentration points in unit volume and the maximum concentration difference <i>Category : SUBSTANTIVE</i>
365	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions.	C	<b>APPPC</b> 21) China (3 Sep 2018 8:40 AM) There is a situation in which the gas concentration exceeds the requirement.Please show how to deal with when the concentration exceeds the requirements. <i>Category : SUBSTANTIVE</i>
366	84	<del>Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated according to the manufacturer's instructions. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are calibrated in accordance with the manufacturer's instructions and international standards or appropriate national standards.</del> <u>Atmospheric gas concentrations should be measured at appropriate intervals during modified atmosphere treatments. according to the manufacturer's instructions.</u>	P	<b>APPPC</b> (36) New Zealand (4 Sep 2018 6:46 AM) Suggest that sentence re calibration is first para given that calibration should occur before monitoring activities. Suggest separating sentences re. calibration and measurement into two paras. Suggest change to ..."in accordance with the manufacturer's instructions and international standards or appropriate national standards" to align with wording in ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. Replace "regular" with "appropriate" as per rationale in 4. <i>Category : TECHNICAL</i>



367	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors <del>and data recording equipment</del> used to measure gases are calibrated according to the manufacturer's instructions.	P	<b>APPPC</b> 77) Japan (8 Sep 2018 2:45 AM) Sensors and data recording equipment are calibrated.  <i>Category : SUBSTANTIVE</i>
368	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors <del>used to measure gases are calibrated</del> <del>calibrated according to the manufacturer's instructions.</del>	P	<b>Argentina</b> Text deleted moved after paragraph 82. <i>Category : EDITORIAL</i>
369	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors used to measure gases are <del>calibrated</del> <del>calibrated according to the manufacturer's instructions.</del>	P	<b>Uruguay</b> Text deleted moved after paragraph 82 <i>Category : EDITORIAL</i>
370	84	Atmospheric gas concentrations should be measured at regular intervals during modified atmosphere treatments. Treatment providers (e.g. companies or individuals) should verify, before each treatment, that sensors <del>used to measure gases are calibrated</del> <del>calibrated. according to the manufacturer's instructions.</del>	P	<b>COSAVE</b> Text deleted moved after paragraph 82. <i>Category : EDITORIAL</i>
371	84	Las concentraciones de los gases atmosféricos deberían medirse a intervalos regulares durante los tratamientos en atmósfera modificada. Los proveedores de tratamientos (por ejemplo, empresas o particulares) deberían verificar, antes de cada tratamiento, que los sensores utilizados para medir los gases estén calibrados conforme a las instrucciones del <del>fabricante</del> <del>fabricante y los requerimientos de la ONPF.</del>	P	<b>Guatemala</b>  <i>Category : EDITORIAL</i>
<b>4.2 Measuring and mapping temperature</b>				
372	85	<b>4.2 Measuring and mapping temperature</b>	P	<b>APPPC</b> Thailand <i>Category : EDITORIAL</i>
373	85	<b>4.2 Measuring and mapping temperature</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
374	86	<del>Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's instructions.</del>	P	<b>European Union</b> This sentence could be deleted because not to repeat the same calibration requirements for gas concentration and temperature, it is suggested to give these requirements in an umbrella paragraph before subsections 4.1 and 4.2. <i>Category : EDITORIAL</i>
375	86	<del>Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's instructions.</del>	P	<b>EPPO</b> This sentence could be deleted because not to repeat the same calibration requirements for gas concentration and temperature, it is suggested to give these requirements in an umbrella paragraph before subsections 4.1 and 4.2.

				<i>Category : EDITORIAL</i>
376	86	Treatment providers should verify that sensors used to measure temperature are calibrated <u>in accordance with the manufacturer's instructions and international standards or appropriate national standards</u> <del>according to the manufacturer's instructions.</del>	P	<b>PPPO</b> Propose to align with wording in ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. <i>Category : TECHNICAL</i>
377	86	Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's <del>instructions</del> <u>instructions following the international standards.</u>	P	<b>Libya</b> Calibration should be done according to international standards. <i>Category : TECHNICAL</i>
378	86	Treatment providers should verify that <del>sensors used to measure</del> temperature <del>are</del> <u>monitoring equipment is</u> calibrated according to the manufacturer's instructions.	P	<b>Japan</b> Temperature monitoring equipment is calibrated to measure adequate temperature. <i>Category : SUBSTANTIVE</i>
379	86	Treatment providers should verify that sensors used to measure temperature are calibrated <u>in accordance with the manufacturer's instructions and international standards or appropriate national standards.</u> <del>according to the manufacturer's instructions.</del>	P	<b>APPPC</b> 37) New Zealand (4 Sep 2018 6:48 AM) To align with wording in ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures.. a comment>> <i>Category : TECHNICAL</i>
380	86	Treatment providers should verify that <del>sensors used to measure</del> temperature <u>monitoring equipments</u> are calibrated according to the manufacturer's instructions.	P	<b>APPPC</b> (78) Japan (8 Sep 2018 2:51 AM) Temperature monitoring equipments are calibrated to measure adequate temperature. <i>Category : SUBSTANTIVE</i>
381	86	Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's <del>instructions</del> <u>instructions following the international standards.</u>	P	<b>NEPPO</b> Calibration should be done according to international standards. <i>Category : TECHNICAL</i>
382	86	<del>Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's instructions.</del>	P	<b>Iran</b> It was repeated 2 lines before. <i>Category : EDITORIAL</i>
383	86	<del>Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's instructions.</del>	P	<b>Argentina</b> Text deleted moved after paragraph 82. <i>Category : EDITORIAL</i>
384	86	<del>Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's instructions.</del>	P	<b>Uruguay</b> Text deleted moved after paragraph 82 <i>Category : EDITORIAL</i>
385	86	<del>Treatment providers should verify that sensors used to measure temperature are calibrated according to the manufacturer's instructions.</del>	P	<b>COSAVE</b> Text deleted moved after paragraph 82. <i>Category : EDITORIAL</i>
386	86	Los proveedores de tratamientos deberían verificar que los sensores utilizados para medir la temperatura estén calibrados <u>y certificados por una unidad competente</u> conforme a las instrucciones del fabricante.	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>

387	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating <del>conditions</del> <u>conditions to assess the error of margin/corrective factor for the temperature of the enclosure.</u>  <u>Temperature mapping should be conducted by the NPPO or an authorized entity (person or organization) of the country in which the treatment is initiated or conducted.</u>	P	<b>Viet Nam</b> Measurement of temperature variation for an enclosure should be for a defined purpose- may not be for the stated error or corrective factor- that should be stipulated for better clarity. Suggest to add this para to align with ISPM42. To include the number of temperature detection points required for an enclosure in this standard.  <i>Category : SUBSTANTIVE</i>
388	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating <del>conditions</del> <u>conditions to assess the error of margin/ corrective factor for the temperature of the enclosure.</u>  <u>Temperature mapping should be conducted by the NPPO or an authorized entity (person or organization) of the country in which the treatment is initiated or conducted.</u>	P	<b>Korea, Republic of</b> Measurement of temperature variation for an enclosure should be for a defined purpose- may not be for the stated error or corrective factor- that should be stipulated for better clarity. Suggest to add this para to align with ISPM42. To include the number of temperature detection points required for an enclosure in this standard.  <i>Category : SUBSTANTIVE</i>
389	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating conditions. <u>Temperature mapping should be conducted according to appropriate procedures using loads and packaging equivalent to that used in commercial application. Temperature variation in the enclosure can be used to determine the best locations for placing the temperature sensors.</u>	P	<b>European Union</b> This paragraph and the following could be merged because they are both about temperature mapping.  <i>Category : EDITORIAL</i>
390	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating conditions. <u>Temperature mapping should be conducted according to appropriate procedures using loads and packaging equivalent to that used in commercial application. Temperature variation in the enclosure can be used to determine the best locations for placing the temperature sensors.</u>	P	<b>EPPO</b> This paragraph and the following could be merged because they are both about temperature mapping.  <i>Category : EDITORIAL</i>
391	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating conditions.	C	<b>APPPC</b> (22) China (3 Sep 2018 8:47 AM) In order to meet the most basic technical requirements. Please define the temperature difference of the temperature detection point.  <i>Category : SUBSTANTIVE</i>
392	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating <del>conditions</del> <u>conditions to assess the error of margin/ corrective factor for the temperature of the enclosure.</u> .	P	<b>APPPC</b> 99) APPPC (11 Sep 2018 4:05 AM) Measurement of temperature variation for an enclosure should be for a defined purpose- may not be for the stated error or corrective factor- that should be stipulated for better clarity.

		<u>Temperature mapping should be conducted by the NPPO or an authorized entity (person or organization) of the country in which the treatment is initiated or conducted.</u>		Suggest to add this para to align with ISPM42. To include the number of temperature detection points required for an enclosure in this standard.  <i>Category : SUBSTANTIVE</i>
393	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating conditions.  <u>Temperature mapping should be conducted by the NPPO or an authorized entity (person or organization) of the country in which the treatment is initiated or conducted.</u>	P	<b>APPPC</b> (39) New Zealand (4 Sep 2018 6:55 AM) Suggest to add this para to align with ISPM42.  <i>Category : TECHNICAL</i>
394	87	Temperature mapping of the enclosure should be performed to identify temperature variation under commercial operating <del>conditions</del> <u>conditions to assess the error of margin/the corrective factor for the temperature of the enclosure.</u>	P	<b>Singapore</b> Measurement of temperature variation for an enclosure should be for a defined purpose (may not be for the stated error or corrective factor) that should be stipulated for better clarity. <i>Category : SUBSTANTIVE</i>
395	87	Se debería realizar un mapeo de la temperatura del recinto para determinar la variación <del>de la temperatura en de</del> condiciones de operación comercial.	P	<b>Guatemala</b>  <i>Category : EDITORIAL</i>
396	88	<del>Temperature mapping should be conducted according to appropriate procedures using loads and packaging equivalent to that used in commercial application. Temperature variation in the enclosure can be used to determine the best locations for placing the temperature sensors.</del>	P	<b>European Union</b> This paragraph about temperature mapping could be merged with the previous paragraph. <i>Category : EDITORIAL</i>
397	88	<del>Temperature mapping should be conducted according to appropriate procedures using loads and packaging equivalent to that used in commercial application. Temperature variation in the enclosure can be used to determine the best locations for placing the temperature sensors.</del>	P	<b>EPPO</b> This paragraph about temperature mapping could be merged with the previous paragraph. <i>Category : EDITORIAL</i>
398	88	Temperature mapping should be conducted according to appropriate procedures using loads and packaging equivalent to that used in commercial application. Temperature variation in the enclosure can be used to determine the best locations for placing the temperature <del>sensors</del> <u>sensors (analogue or digital).</u>	P	<b>Japan</b> Temperature sensors include analogue sensors and digital sensors. <i>Category : TECHNICAL</i>
399	88	Temperature mapping should be conducted according to appropriate procedures using loads and packaging equivalent to that used in commercial application. Temperature variation in the enclosure can be used to determine the best locations for placing the temperature <del>sensors</del> <u>sensors (analogue or digital).</u>	P	<b>APPPC</b> 85) Japan (9 Sep 2018 1:37 AM) Temperature sensors include analogue sensors and digital sensors.  <i>Category : TECHNICAL</i>

400	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at <del>regular</del> - <u>appropriate</u> intervals to ensure that the required treatment parameters are achieved throughout the enclosure.	P	<b>Viet Nam</b> Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word 'appropriate' aligns better terminology in ISPM 28 Phytosanitary treatments for regulated pests and ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. <i>Category : SUBSTANTIVE</i>
401	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at <del>regular</del> - <u>appropriate</u> intervals to ensure that the required treatment parameters are achieved throughout the enclosure.	P	<b>Korea, Republic of</b> Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word 'appropriate' aligns better terminology in ISPM 28 Phytosanitary treatments for regulated pests and ISPM42 Requirements for the use of temperature treatments as phytosanitary measures. <i>Category : TECHNICAL</i>
402	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at regular intervals to ensure that the required treatment parameters are achieved throughout the enclosure.	C	<b>China</b> Please determine the number of temperature detection points in the unit volume and define the temperature range of the temperature detection points. <i>Category : SUBSTANTIVE</i>
403	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at <del>regular</del> - <u>appropriate</u> intervals to ensure that the required treatment parameters are achieved throughout the enclosure.	P	<b>APPPC</b> (100) APPPC (11 Sep 2018 4:11 AM) Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word 'appropriate' aligns better terminology in ISPM 28 Phytosanitary treatments for regulated pests and ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. <i>Category : TECHNICAL</i>
404	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at <del>regular</del> - <u>appropriate</u> intervals to ensure that the required treatment parameters are achieved throughout the enclosure.	P	<b>Thailand</b> Suggest replacing "regular intervals" with "appropriate intervals" as regular could mean every 10 hours which might not be appropriate for the treatment type. The word 'appropriate' aligns better terminology in ISPM 28 Phytosanitary treatments for regulated pests and ISPM 42 Requirements for the use of temperature treatments as phytosanitary measures. <i>Category : EDITORIAL</i>
405	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at regular intervals to ensure that the required treatment parameters are achieved throughout the <del>enclosure</del> <u>enclosure during all the exposure period.</u>	P	<b>Argentina</b> Parameters should be achieved throughout the enclosure and all the exposure period. <i>Category : TECHNICAL</i>
406	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at regular intervals to ensure that the required treatment parameters are achieved throughout the <del>enclosure</del> <u>enclosure during all the exposure period.</u>	P	<b>Uruguay</b> Parameters should be achieved throughout the enclosure and all the exposure period. <i>Category : TECHNICAL</i>

407	89	The temperature of the commodity and the atmosphere within the enclosure should be measured at regular intervals to ensure that the required treatment parameters are achieved throughout the <del>enclosure-enclosure</del> <u>during all the exposure period.</u>	P	<b>COSAVE</b> Parameters should be achieved throughout the enclosure and all the exposure period. <i>Category : TECHNICAL</i>
408	89	La temperatura del producto y la de la atmósfera del interior del recinto deberían medirse a intervalos regulares para garantizar que se alcancen los parámetros de tratamiento requeridos en todo el recinto. <u>durante todo el período de exposición.</u>	P	<b>Costa Rica</b> Los parámetros deberían ser alcanzados durante todo el periodo de exposición. <i>Category : TECHNICAL</i>
<b>5. Adequate Systems for Treatment Facilities</b>				
409	90	<b>56. Adequate Systems for Treatment Facilities</b>	P	<b>APPPC</b> Thailand <i>Category : EDITORIAL</i>
410	90	<b>5 6. Adequate Systems for Treatment Facilities</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
411	90	<b>5. Sistemas adecuados para las instalaciones de tratamiento</b>	C	<b>OIRSA</b> No se entiende a que se refiere Sistemas adecuados; no se tiene claro. Encargados de la norma propongan un nuevo título. <i>Category : SUBSTANTIVE</i>
412	90	<b>5. Sistemas adecuados para las <del>instalaciones-entidades</del> de tratamiento</b>	P	<b>OIRSA</b> En esta apartado se indican aspectos que tanto las instalaciones como los proveedores de tratamiento debería realizar <i>Category : SUBSTANTIVE</i>
413	90	<b>5. Sistemas adecuados para las <del>instalaciones-entidades</del> de tratamiento</b>	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>
414	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the <u>target</u> pest <del>of concern</del> under specific conditions and <u>that</u> the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and contamination after treatment.	P	<b>European Union</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
415	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the <u>target</u> pest <del>of concern</del> under specific conditions and <u>that</u> the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and contamination after treatment.	P	<b>EPPO</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
416	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the	C	<b>China</b> It would be helpful to add the following requirements in the design and construction of the facilities for modified atmosphere



		pest of concern under specific conditions and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and contamination after treatment.		treatment, such as site selection, safety assurance, and technical requirements especially key technical parameters including air tightness, thermal insulation performance and gas cycle capacity. The modified atmosphere facilities for the phytosanitary treatment should follow the corresponding technical specifications. <i>Category : SUBSTANTIVE</i>
417	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the pest of concern under specific conditions and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted (& maintained) and commodities are protected from infestation and contamination after treatment.	P	<b>APPPC</b> 63) Singapore (5 Sep 2018 12:42 PM) MA treatment is effective only for the duration that treatment is maintained. After treatment, if the critical parameters are not continued to be maintained eg at 3% oxygen, the treated consignment may be subjected to reinfestation with introduction of fresh oxygen via a leak or reinfestation can occur by activation of dormant insect stages. <i>Category : SUBSTANTIVE</i>
418	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the <del>target</del> pest <del>of concern</del> under specific conditions and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and contamination after treatment.	P	<b>Australia</b> Language consistency <i>Category : EDITORIAL</i>
419	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the pest of concern under specific conditions and the treatment has been properly applied. Systems for <del>treatment delivery such a treatment</del> should be designed, used and monitored to ensure that treatments are properly conducted and commodities are protected from infestation and contamination after treatment.	P	<b>Iran</b> <i>Category : EDITORIAL</i>
420	91	Confidence in the adequacy of a modified atmosphere treatment as a phytosanitary measure is primarily based on assurance that the treatment is effective against the pest of concern under specific conditions and the treatment has been properly applied. Systems for treatment delivery should be designed, used and monitored to ensure that treatments are properly conducted (& maintained) and commodities are protected from infestation and contamination after treatment.	P	<b>Singapore</b> MA treatment is effective only for the duration that the treatment is maintained. After treatment, if the critical parameters are not continued to be maintained, the treated consignment is subjected to reinfestation. eg if the oxygen level is not continuously maintained and fresh oxygen introduced via a leak, reinfestation can occur or the insect stages may be activated to complete their lifecycle. <i>Category : SUBSTANTIVE</i>
421	91	La confianza en la suficiencia de un tratamiento en atmósfera modificada como medida fitosanitaria se basa principalmente en la garantía de que el tratamiento es eficaz contra la plaga <del>reglamentada objetivo</del> en <del>cuestión en</del> condiciones específicas y de que el tratamiento se ha aplicado correctamente. Los sistemas de aplicación de tratamientos deberían diseñarse, utilizarse y monitorearse	P	<b>OIRSA</b> Se recomienda incorporar la palabra "reglamentada" ya que el tratamiento sería dirigido realmente a una "plaga reglamentada", no a la plaga en cuestión.  Para ser coherente con la terminología empleada en la NIMF 42 se recomienda adicionar la palabra "objetivo" (ver: punto 6.2)



		para garantizar la correcta realización de los tratamientos y la protección de los productos contra la infestación y la contaminación después del tratamiento.		Mantenimiento de registros). <i>Category : TECHNICAL</i>
422	91	La confianza en la suficiencia de un tratamiento en atmósfera modificada como medida fitosanitaria se basa principalmente en la garantía de que el tratamiento es eficaz contra la plaga <u>objetivo</u> en <del>euestión-en</del> condiciones específicas y de que el tratamiento se ha aplicado correctamente. Los sistemas de aplicación de tratamientos deberían diseñarse, utilizarse y monitorearse para garantizar la correcta realización de los tratamientos y la protección de los productos contra la infestación y la contaminación después del tratamiento.	P	<b>Costa Rica</b> Termino correcto y utilizado en las NIMF, el tratamiento se aplica para una plaga específica. <i>Category : TECHNICAL</i>
423	91	La confianza en la suficiencia de un tratamiento en atmósfera modificada como medida fitosanitaria se basa principalmente en la garantía de que el tratamiento es eficaz contra la plaga <u>reglamentada</u> en <del>euestión-en</del> condiciones específicas y de que el tratamiento se ha aplicado correctamente. Los sistemas de aplicación de tratamientos deberían diseñarse, utilizarse y monitorearse para garantizar la correcta realización de los tratamientos y la protección de los productos contra la infestación y la contaminación después del tratamiento.	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>
424	92	<del>The NPPO of the country in which the treatment facility is located or where treatments are initiated is responsible for ensuring that the system requirements are met.</del> The NPPO of the country in which the treatments are conducted or initiated (the latter when fumigation takes place during transport), through its phytosanitary certification, ensures that the system requirements are met.	P	<b>Canada</b> In Canada, the NPPO does not always authorize treatment entities or supervise the treatment entity though an authorized entity. Treatment entities, like carbon dioxide applicators or fumigation applicators are licensed by other government departments, which have specific legislation and requirements. However, when the outcome of a treatment entity's activity is used by the NPPO for phytosanitary certification, it ensures that the system requirements are met. The sentence as worded currently brings on direct responsibility to the NPPO with regards to system requirements. <i>Category : SUBSTANTIVE</i>
425	92	The NPPO of the country in which <del>the treatment facility is located or where</del> treatments are <u>conducted or</u> initiated is responsible for ensuring that the system requirements are met.	P	<b>European Union</b> Simplification and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
426	92	The NPPO of the country in which the <del>treatment facility is located or where</del> treatments are <u>conducted or</u> initiated is responsible for ensuring that the system requirements are met.	P	<b>EPPO</b> Simplification and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
427	92	The NPPO of the country in which the treatment facility is located or where treatments are initiated is responsible for ensuring that the system requirements are met.	C	<b>China</b> Quarantine certification is a management requirement for facilities used for quarantine treatment. Please add the facilities used for modified atmospheres treatment require official quarantine certification. <i>Category : SUBSTANTIVE</i>

428	92	The NPPO of the country in which the treatment facility is located or where treatments are initiated is responsible for ensuring that the system requirements are met.  <u>the requirements in design and construction of the facilities for modified atmosphere treatment, such as site selection, safety assurance, and technical requirements especially key technical parameters including air tightness, thermal insulation performance and gas cycle capacity.</u>	P	<b>APPPC</b> (23) China (3 Sep 2018 8:52 AM) The modified atmosphere facilities for the phytosanitary treatment should follow the corresponding technical specifications.  <i>Category : SUBSTANTIVE</i>
429	92	The NPPO of the country in which the treatment facility is located or where treatments are initiated is responsible for ensuring that the system requirements are met.  <u>Quarantine certificate of modifying atmospheres treatment facilities</u>	P	<b>APPPC</b> (24) China (3 Sep 2018 8:57 AM) Certification is a management requirement for the facilities used in phytosanitary treatment.  <i>Category : SUBSTANTIVE</i>
430	92	The NPPO of the country in which the <del>treatment facility is located or where</del> treatments are <u>conducted or</u> initiated is responsible for ensuring that the system requirements are met.	P	<b>Argentina</b> For consistency. <i>Category : EDITORIAL</i>
431	92	The NPPO of the country in which the <del>treatment facility is located or where</del> treatments are <u>conducted or</u> initiated is responsible for ensuring that the system requirements are met.	P	<b>Uruguay</b> For consistency <i>Category : EDITORIAL</i>
432	92	The NPPO of the country in which the <del>treatment facility is located or where</del> treatments are <u>conducted or</u> initiated is responsible for ensuring that the system requirements are met.	P	<b>COSAVE</b> For consistency. <i>Category : EDITORIAL</i>
433	92	La ONPF del país en el que se <del>ubica la instalación de tratamiento realiza</del> o donde se inician los tratamientos <del>tiene el cometido es responsable</del> de garantizar el cumplimiento de los requisitos del sistema.	P	<b>Costa Rica</b> Por consistencia <i>Category : TECHNICAL</i>
<b>5.1 Authorization of entities</b>				
434	93	<b>5.1 Authorization of <del>entities</del> <u>treatment providers</u></b>	P	<b>European Union</b> The TPG reviewed first consultation comments on the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure" and noted that a treatment provider is a person or organization applying the treatment operating in a physical construction (i.e. the treatment facility). Because "entity" could refer to the facility, the provider, or both, the TPG supported using "treatment provider" and "treatment facility" instead of "entity" when it was clear that the references in the draft ISPM were made to either the provider or the facility. They felt such an approach would be clearer, although they acknowledged it was not consistent with the draft ISPM on "Requirements for the use of temperature treatments as phytosanitary measures".  According to Appendix 4 (General recommendations on use of

				<p>terms in ISPMs) of the IPPC style guide for standards and meeting documents, in ISPMs and other IPPC documents it is recommended the term "authorize" to be used "to give authority to a person or a body to do something".</p> <p>It is therefore suggested to replace "entities" with "treatment providers" which is a term already used in this draft standard (e.g. see paragraph 84) and used many times in ISPM 15 (Regulation of wood packaging material in international trade).</p> <p><i>Category : TECHNICAL</i></p>
435	93	<b>5.1 Authorization of <del>entiti</del>treatment providers</b>	P	<p><b>EPPO</b></p> <p>The TPG reviewed first consultation comments on the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure" and noted that a treatment provider is a person or organization applying the treatment operating in a physical construction (i.e. the treatment facility). Because "entity" could refer to the facility, the provider, or both, the TPG supported using "treatment provider" and "treatment facility" instead of "entity" when it was clear that the references in the draft ISPM were made to either the provider or the facility. They felt such an approach would be clearer, although they acknowledged it was not consistent with the draft ISPM on "Requirements for the use of temperature treatments as phytosanitary measures".</p> <p>According to Appendix 4 (General recommendations on use of terms in ISPMs) of the IPPC style guide for standards and meeting documents, in ISPMs and other IPPC documents it is recommended the term "authorize" to be used "to give authority to a person or a body to do something".</p> <p>It is therefore suggested to replace "entities" with "treatment providers" which is a term already used in this draft standard (e.g. see paragraph 84) and used many times in ISPM 15 (Regulation of wood packaging material in international trade).</p> <p><i>Category : TECHNICAL</i></p>
436	93	<b>5.1 Authorization of <del>entiti</del>treatment providers</b>	P	<p><b>IPPC Regional Workshop Central Asia &amp; Central Europe</b></p> <p>In Russian is: Уполномочивание лиц, ответственных за проведение обработок</p> <p><i>Category : TECHNICAL</i></p>
437	93	<b><del>5</del>6.1 Authorization of entities</b>	P	<p><b>APPPC</b></p> <p>Thailand</p> <p><i>Category : EDITORIAL</i></p>
438	93	<b><del>5</del> 6.1 Authorization of entities</b>	P	<p><b>Thailand</b></p> <p>re-numbering</p> <p><i>Category : EDITORIAL</i></p>
439	93	<b>5.1 Autorización a entidades</b>	P	<p><b>OIRSA</b></p> <p>Este componente no debe ser parte de la norma ya que no provee ningún elemento técnico de requisito para los tratamientos en</p>

				atmosfera modificada. La norma propuesta sobre autorización de entidades abarca el concepto en detalle. <i>Category : TECHNICAL</i>
440	93	<b>5.1 Autorización a entidades</b>	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>
441	94	In this standard, “entities” include both treatment providers and treatment facilities. Modified atmosphere treatments are applied by treatment providers in treatment facilities.	C	<b>Viet Nam</b> Please consideration about sentence *both treatment providers and treatment facilities*, then, the following the sentence *applied by treatment providers in treatment facilities* <i>Category : SUBSTANTIVE</i>
442	94	In this standard, “entities” include both treatment providers and treatment facilities <u>facilities (including packaging facilities used as modified atmosphere treatment)</u> . Modified atmosphere treatments are applied by treatment providers in treatment facilities.	P	<b>Viet Nam</b> The enclosure used for modified atmosphere treatments includes "packaging" as well as fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship holds). So treatment facilities also include facilities for packaging used as modified <i>Category : SUBSTANTIVE</i>
443	94	<del>In this standard, “entities” include both treatment providers and treatment facilities. Modified atmosphere treatments are applied by treatment providers in treatment facilities.</del>	P	<b>European Union</b> The definition of "entity" is no more necessary (please see the comment on "entities" in the previous paragraph) and the second sentence is redundant with the paragraph proposed to be added at the beginning of section 2, paragraph 54 (better location). <i>Category : TECHNICAL</i>
444	94	<del>In this standard, “entities” include both treatment providers and treatment facilities. Modified atmosphere treatments are applied by treatment providers in treatment facilities.</del>	P	<b>EPPO</b> The definition of "entity" is no more necessary (please see the comment on "entities" in the previous paragraph) and the second sentence is redundant with the paragraph proposed to be added at the beginning of section 2, paragraph 54 (better location). <i>Category : TECHNICAL</i>
445	94	In this standard, “entities” include both treatment providers and treatment facilities. Modified atmosphere treatments are applied by treatment providers in treatment facilities <u>facilities (including facilities for packaging used as modified atmosphere treatment)</u> .	P	<b>Japan</b> The enclosure used for modified atmosphere treatments includes "packaging" as well as fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship holds). So treatment facilities also include facilities for packaging used as modified atmosphere treatment. <i>Category : TECHNICAL</i>
446	94	In this standard, “entities” include both treatment providers and treatment facilities. Modified atmosphere treatments are applied by treatment providers in treatment facilities <u>facilities (including facilities for packaging used as modified atmosphere treatment)</u> .	P	<b>APPPC</b> (79) Japan (8 Sep 2018 2:55 AM) The enclosure used for modified atmosphere treatments includes "packaging" as well as fixed structures (e.g. vacuum chambers, freight containers, warehouses, cargo ship holds). So treatment facilities also include facilities for packaging used as modified atmosphere treatment. <i>Category : TECHNICAL</i>
447	94	<del>En la presente norma, se entiende por “entidades” tanto los proveedores de tratamientos como las instalaciones de tratamiento. Los proveedores de</del>	P	<b>OIRSA</b> Este componente no debe ser parte de la norma ya que no provee ningún elemento técnico de requisito para los tratamientos en

		<del>tratamientos aplican los tratamientos en atmósfera modificada en instalaciones de tratamiento.</del>		atmosfera modificada. La norma propuesta sobre autorización de entidades abarca el concepto en detalle. <i>Category : TECHNICAL</i>
448	94	En la presente norma, se entiende por “entidades” tanto los proveedores de tratamientos como las instalaciones de tratamiento. Los proveedores de tratamientos aplican los tratamientos en atmósfera modificada en instalaciones de tratamiento.	C	<b>Guatemala</b> se recomienda revisar la pertinencia de la seccion especifica sobre las autoridades de entidades enreferencia a la seccion 5.1 <i>Category : SUBSTANTIVE</i>
449	94	<del>En la presente norma, se entiende por “entidades” tanto los proveedores de tratamientos como las instalaciones de tratamiento. Los proveedores de tratamientos aplican los tratamientos en atmósfera modificada en instalaciones de tratamiento.</del>	P	<b>Guatemala</b>  <i>Category : EDITORIAL</i>
450	95	Treatment entities should be authorized by the NPPO in the country in which the treatment is conducted or initiated. <u>However, in some countries, treatment entities are not authorized by NPPOs, but licensed by other government departments or agencies.</u> This authorization <u>or licensing</u> normally includes approval of both treatment facilities and treatment providers. Specific procedures appropriate for each facility, provider and commodity treatment should be approved by the NPPO.	P	<b>Canada</b> In Canada, the NPPO does not always authorize treatment entities or supervise the treatment entity though an authorized entity. Treatment entities, like carbon dioxide applicators or fumigation applicators are licensed by other government departments, which have specific legislation and requirements. <i>Category : SUBSTANTIVE</i>
451	95	Treatment entities should be authorized by the NPPO in the country in which the treatment is conducted or initiated. This authorization normally includes approval of both treatment facilities and treatment providers. <del>Specific</del> <u>This includes approval of the specific</u> procedures appropriate for each facility, provider and commodity <del>treatment should be approved by the NPPO</del> <u>treatment.</u>	P	<b>European Union</b> On the last sentence, not clear how to read. New wording is provided. <i>Category : TECHNICAL</i>
452	95	Treatment <del>entities-providers</del> should be authorized by the NPPO in the country in which the treatment is conducted or initiated. This authorization normally includes approval of both treatment facilities and treatment providers. Specific procedures appropriate for each facility, provider and commodity treatment should be approved by the NPPO.	P	<b>European Union</b> Please see the comment on "entities" in paragraph 93. <i>Category : TECHNICAL</i>
453	95	Treatment entities should be authorized by the NPPO in the country in which the treatment is conducted or <del>initiated</del> <u>initiated (the latter when the treatment takes place during transport)</u> . This authorization normally includes approval of both treatment facilities and treatment providers. Specific procedures appropriate for each facility, provider and commodity treatment should be approved by the NPPO.	P	<b>European Union</b> Important precision to be given in consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>

454	95	Treatment <del>entities-providers</del> should be authorized by the NPPO in the country in which the treatment is conducted or <del>initiated</del> <u>initiated (the latter when the treatment takes place during transport)</u> . This authorization normally includes approval of both treatment facilities and treatment providers. <u>This includes approval of the sSpecific-pecific</u> procedures appropriate for each facility, provider and commodity <del>treatment should be approved by the NPPO</del> <u>treatment</u> .	P	<b>EPPO</b> Important precision to be given in consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  Please see the comment on "entities" in paragraph 93  On the last sentence, not clear how to read. New wording is provided. <i>Category : TECHNICAL</i>
455	95	Treatment <del>entities-providers</del> should be authorized by the NPPO in the country in which the treatment is conducted or initiated. This authorization normally includes approval of both treatment facilities and treatment providers. Specific procedures appropriate for each facility, provider and commodity treatment should be approved by the NPPO.	P	<b>IPPC Regional Workshop Central Asia &amp; Central Europe</b> With the modification suggested the paragraph reads in Russian: Лица, ответственные за проведение обработок должны быть уполномочены НОКЗР в стране, в которой проводится обработка или в которой она начата. Это полномочие обычно включает утверждение как сооружений для обработок, так и проводящих обработки юридических лиц. НОКЗР должна утвердить конкретные процедуры, соответствующие каждому сооружению, каждому проводящему обработки юридическому лицу и каждому обрабатываемому товару. <i>Category : TECHNICAL</i>
456	95	Treatment entities should be authorized by the NPPO in the country in which the treatment is conducted or initiated. This authorization normally includes approval of both treatment facilities and treatment providers. Specific procedures appropriate for each facility, provider and commodity treatment should be approved <u>and audited</u> by the NPPO.	P	<b>United States of America</b> There is no reference about the importing country and their responsibilities and requirements for this section. <i>Category : TECHNICAL</i>
457	95	<del>Las entidades de tratamiento deberían tener autorización de la ONPF del país en el que se realiza o inicia el tratamiento. Esta autorización normalmente incluye la aprobación tanto de las instalaciones de tratamiento como de los proveedores de tratamientos. La ONPF debería aprobar procedimientos específicos adecuados para cada instalación, proveedor y tratamiento de producto.</del>	P	<b>OIRSA</b> Este componente no debe ser parte de la norma ya que no provee ningún elemento técnico de requisito para los tratamientos en atmosfera modificada. La norma propuesta sobre autorización de entidades abarca el concepto en detalle. <i>Category : TECHNICAL</i>
458	95	<del>Las entidades de tratamiento deberían tener autorización de la ONPF del país en el que se realiza o inicia el tratamiento. Esta autorización normalmente incluye la aprobación tanto de las instalaciones de tratamiento como de los proveedores de tratamientos. La ONPF debería aprobar procedimientos específicos adecuados para cada instalación, proveedor y tratamiento de producto.</del>	P	<b>Guatemala</b>  <i>Category : EDITORIAL</i>
459	96	<del>NPPOs</del> <u>NPPOs, or where appropriate, other government department or</u> should maintain a list of authorized <del>entities</del> <u>or licensed entities, respectively,</u> for modified	P	<b>Canada</b> In Canada, the NPPO does not always authorize treatment entities or supervise the treatment entity though an authorized entity.



		atmosphere treatment, including, where appropriate, approved facilities and approved providers.		Treatment entities, like carbon dioxide applicators or fumigation applicators are licensed by other government departments, which have specific legislation and requirements. <i>Category : SUBSTANTIVE</i>
460	96	NPPOs should maintain a list of authorized <del>entities-treatment providers</del> for modified atmosphere treatment, including, where appropriate, approved <del>facilities and approved providers</del> <u>facilities</u> .	P	<b>European Union</b> Please see the comment on "entities" in paragraph 93. <i>Category : TECHNICAL</i>
461	96	NPPOs should maintain a list of authorized <del>entities-treatment providers</del> for modified atmosphere treatment, including, where appropriate, approved <del>facilities and approved providers</del> <u>facilities</u> .	P	<b>EPPO</b> Please see the comment on "entities" in paragraph 93. <i>Category : TECHNICAL</i>
462	96	<del>Las ONPF deberían mantener una lista de las entidades autorizadas para el tratamiento en atmósfera modificada, incluidos, en caso pertinente, las instalaciones aprobadas y los proveedores aprobados.</del>	P	<b>OIRSA</b> Este componente no debe ser parte de la norma ya que no provee ningún elemento técnico de requisito para los tratamientos en atmósfera modificada. La norma propuesta sobre autorización de entidades abarca el concepto en detalle. <i>Category : TECHNICAL</i>
463	96	Las ONPF deberían mantener una lista de las entidades <u>de tratamiento</u> autorizadas para el tratamiento en atmósfera modificada, incluidos, en caso pertinente, las instalaciones aprobadas y los proveedores aprobados.	P	<b>Costa Rica</b> En la defición de Entidad para esta norma ya se indica que entidad incluye las instalaciones y los provvedores. <i>Category : TECHNICAL</i>
464	96	<del>Las ONPF deberían mantener una lista de las entidades autorizadas para el tratamiento en atmósfera modificada, incluidos, en caso pertinente, las instalaciones aprobadas y los proveedores aprobados.</del>	P	<b>Guatemala</b> <i>Category : EDITORIAL</i>
<b>5.2 Prevention of infestation and contamination after treatment</b>				
465	97	<b>5.22 Phytosanitary security</b> <del>Prevention of infestation and contamination after treatment</del>	P	<b>Viet Nam</b> suggest this is renamed to "Phytosanitary Security" to align with ISPM 5 terminology where Phytosanitary security is "the maintenance of the integrity of a consignment and prevention of its infestation and contamination by regulated pests though the application of appropriate phytosanitary measures." <i>Category : TECHNICAL</i>
466	97	<b>5.2</b> <del>Prevention of infestation and contamination after treatment</del> <u>Phytosanitary security</u>	P	<b>Korea, Republic of</b> Suggest this is renamed to "Phytosanitary Security" to align with ISPM 5 terminology where Phytosanitary security is "the maintenance of the integrity of a consignment and prevention of its infestation and contamination by regulated pests though the application of appropriate phytosanitary measures." <i>Category : TECHNICAL</i>
467	97	<b>5.2 Prevention of infestation and contamination after treatment</b>	C	<b>United States of America</b> Considering including in the event of re-infestation what are the steps to follow, such as repeating the treatment. Needs to add something about a contingency plan by NPPO that is conducting the treatment in case of re-infestation, or other treatment failures.



				<i>Category : SUBSTANTIVE</i>
468	97	<b>56.2 Prevention of infestation and contamination after treatment</b>	P	<b>APPPC</b> thailand <i>Category : EDITORIAL</i>
469	97	<b>5.2 <u>Phytosanitary security</u> Prevention of infestation and contamination after treatment</b>	P	<b>APPPC</b> (101) APPPC (11 Sep 2018 4:22 AM) suggest this is renamed to "Phytosanitary Security" to align with ISPM 5 terminology where Phytosanitary security is "the maintenance of the integrity of a consignment and prevention of its infestation and contamination by regulated pests though the application of appropriate phytosanitary measures." 41) New Zealand (4 Sep 2018 6:59 AM) suggest this is renamed to "Phytosanitary Security" to align with ISPM 5 terminology where Phytosanitary security is "the maintenance of the integrity of a consignment and prevention of its infestation and contamination by regulated pests though the application of appropriate phytosanitary measures."  <i>Category : TECHNICAL</i>
470	97	<b>5.2 <u>Prevention of infestation and contamination after treatment</u> Phytosanitary Security</b>	P	<b>Thailand</b> suggest this is renamed to "Phytosanitary Security" to align with ISPM 5 terminology where Phytosanitary security is "the maintenance of the integrity of a consignment and prevention of its infestation and contamination by regulated pests though the application of appropriate phytosanitary measures." <i>Category : EDITORIAL</i>
471	97	<b>5 6.2 Prevention of infestation and contamination after treatment</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
472	98	The consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the <u>treatment</u> provider on how to achieve this. Measures should be implemented to prevent possible infestation or contamination of the commodity after the treatment. The following measures may be required:	P	<b>European Union</b> Clearer. <i>Category : EDITORIAL</i>
473	98	The consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the <u>treatment</u> provider on how to achieve this. Measures should be implemented to prevent possible infestation or contamination of the commodity after the treatment. The following measures may be required:	P	<b>EPPO</b> Clearer. <i>Category : EDITORIAL</i>
474	98	The consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the provider on how to achieve this. Measures should be implemented to prevent possible infestation or contamination of the commodity after the treatment, <u>including keeping the</u>	P	<b>PPPO</b> ammend and deletion; these are things that should occur in ensuring infestation does not occur. <i>Category : SUBSTANTIVE</i>

		<u>commodity in a pest free enclosure and segregating and identifying treated commodities.</u> The following measures may <u>also</u> be required:		
475	98	The consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the provider on how to achieve this. <del>Measures</del> <u>After the treatment is successfully completed, measures</u> should be implemented to prevent possible infestation or contamination of the <del>commodity after the treatment</del> <u>treated commodity</u> . The following measures may be required:	P	<b>United States of America</b> To improve clarity. Category : <i>EDITORIAL</i>
476	98	The consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the <u>treatment or service</u> provider on how to achieve this. Measures should be implemented to prevent possible infestation or contamination of the commodity after the treatment. The following measures may be required:	P	<b>IPPC Regional Workshop Africa</b>  Category : <i>SUBSTANTIVE</i>
477	98	The <del>consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the provider on how to achieve this.</del> <u>Measures</u> <del>facility</del> should be <del>implemented</del> <u>provide the necessary measures</u> to prevent possible infestation or contamination of the commodity <del>after the treatment</del> . The following measures may be required:	P	<b>Costa Rica</b> For consistency with the ISPM 42 Category : <i>TECHNICAL</i>
478	98	The <del>consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the provider on how to achieve this.</del> <u>Measures</u> <del>facility</del> should <del>be implemented</del> <u>provide the necessary measures</u> to prevent possible infestation or contamination of the commodity after <del>the treatment</del> . The following measures may be required:	P	<b>Argentina</b> For consistency with the ISPM 42. Category : <i>TECHNICAL</i>
479	98	The <del>consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the provider on how to achieve this.</del> <u>Measures</u> <del>facility</del> should <del>be implemented</del> <u>provide the necessary measures</u> to prevent possible infestation <del>or and</del> contamination of the commodity after <del>the treatment</del> . The following measures may be required:	P	<b>Uruguay</b> For consistency with ISPM 42. Category : <i>TECHNICAL</i>
480	98	The <del>consignment owner is responsible for prevention of infestation and contamination after treatment and may cooperate with the provider on how to achieve this.</del> <u>Measures</u> <del>facility</del> should <del>be implemented</del> <u>provide the necessary measures</u> to prevent possible infestation or contamination of the commodity after <del>the treatment</del> . The following measures may be required:	P	<b>COSAVE</b> For consistency with the ISPM 42. Category : <i>TECHNICAL</i>
481	99	<u>keeping the commodity in a pest free enclosure</u>	P	<b>PPPO</b>  Category : <i>SUBSTANTIVE</i>
482	99	keeping the commodity in a pest free enclosure	C	<b>Australia</b> This measure should be done. Not may. Category : <i>TECHNICAL</i>

483	100	packing the commodity immediately <del>after treatment</del> <u>in pest-proof packing</u>	P	<b>European Union</b> "after treatment" is redundant with the title of the subsection and "in pest-proof packing" is an interesting precision to be given (both changes are consistent with the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure"). <i>Category : TECHNICAL</i>
484	100	packing the commodity immediately <del>after treatment</del> <u>in pest-proof packing</u>	P	<b>EPPO</b> "after treatment" is redundant with the title of the subsection and "in pest-proof packing" is an interesting precision to be given (both changes are consistent with the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure"). <i>Category : TECHNICAL</i>
485	100	packing the commodity immediately after <del>treatment</del> <u>treatment</u> <u>-packing commodity in insect proof containers/cartons</u>	P	<b>PPPO</b> consider including another measure after this <i>Category : SUBSTANTIVE</i>
486	100	embalar el producto <del>inmediatamente después del tratamiento</del> <u>inmediatamente;</u>	P	<b>OIRSA</b> En el párrafo 98 ya se señala que esta es una de las medidas que deberían aplicarse después del tratamiento para evitar la infestación o contaminación del producto. Por lo que se recomienda eliminarla para que no haya redundancia. <i>Category : EDITORIAL</i>
487	101	<del>segregating and identifying treated commodities</del>	P	<b>PPPO</b> <i>Category : SUBSTANTIVE</i>
488	101	segregating and identifying treated commodities	C	<b>Australia</b> This measure should be done. Not may. <i>Category : TECHNICAL</i>
489	102	dispatching the commodity <del>immediately after treatment</del> <u>immediately.</u>	P	<b>European Union</b> "after treatment" is redundant with the title of the subsection (this change is consistent with the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure"). <i>Category : EDITORIAL</i>
490	102	dispatching the commodity <del>immediately after treatment</del> <u>immediately.</u>	P	<b>EPPO</b> "after treatment" is redundant with the title of the subsection (this change is consistent with the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure"). <i>Category : EDITORIAL</i>
491	102	dispatching the commodity <del>immediately as soon as possible</del> after treatment.	P	<b>APPPC</b> 2) Nepal (3 Aug 2018 4:51 AM) <i>Category : SUBSTANTIVE</i>
492	102	dispatching the commodity immediately after treatment. <u>Segregating treated and untreated commodities</u> <u>Use of entry and exit point to the treatment facility</u>	P	<b>IPPC Regional Workshop Africa</b> These methods may also prevent infestation or contamination. <i>Category : TECHNICAL</i>

493	102	<del>expedir</del> <u>enviar</u> el producto <del>inmediatamente después del tratamiento</del> <u>inmediatamente</u> .	P	<b>OIRSA</b> En el párrafo 98 ya se señala que esta es una de las medidas que deberían aplicarse después del tratamiento para evitar la infestación o contaminación del producto. Por lo que se recomienda eliminarla para que no haya redundancia. <i>Category : EDITORIAL</i>
<b>5.3 Labelling</b>				
494	103	<b>56.3 Labelling</b>	P	<b>APPPC</b> thailand <i>Category : EDITORIAL</i>
495	103	<b>5 6.3 Labelling</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
496	103	<b>5.3 Etiquetado</b>	P	<b>OIRSA</b> Etiquetado no corresponde al espíritu de las NIMF. Debería eliminarse todo el párrafo. <i>Category : SUBSTANTIVE</i>
497	104	<del>Commodities-Consignments</del> may be labelled with treatment lot numbers or other features of identification (e.g. locations of packing and the treatment facility, dates of packing and treatment) allowing trace-back for non-compliant consignments. The labels should be easily identifiable and placed on visible locations.	P	<b>Australia</b> It is consignments that are labelled not commodities. <i>Category : TECHNICAL</i>
498	104	Commodities may be labelled with treatment lot numbers or other features of identification (e.g. locations of packing and the treatment facility, dates of packing and treatment) allowing trace-back for non-compliant consignments. <del>The When</del> <u>used</u> , labels should be easily identifiable and placed on visible locations.	P	<b>European Union</b> According to the first sentence of the paragraph, labels are optional (this change is consistent with the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure"). <i>Category : EDITORIAL</i>
499	104	Commodities may be labelled with treatment lot numbers or other features of identification (e.g. locations of packing and the treatment facility, dates of packing and treatment) allowing trace-back for non-compliant consignments. <del>The When</del> <u>used</u> , labels should be easily identifiable and placed on visible locations.	P	<b>EPPO</b> According to the first sentence of the paragraph, labels are optional (this change is consistent with the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure"). <i>Category : EDITORIAL</i>
500	104	Commodities may be labelled with treatment lot numbers or other features of identification (e.g. locations of packing and the treatment facility, dates of packing and treatment) allowing trace-back for non-compliant consignments. The labels should be easily identifiable and placed on visible locations.	C	<b>PPPO</b> replace the paragraph with " treated consignments should be appropriately labelled to enable traceback in the event of non-compliance <i>Category : SUBSTANTIVE</i>
501	104	Los productos podrán etiquetarse con números de lote de tratamiento u otros medios de identificación (por ejemplo, lugar de embalaje y ubicación de las instalaciones de tratamiento, fechas de embalaje y de tratamiento) que permitan el rastreo <del>de del incumplimiento en</del> los <del>envíos no conformes</del> <u>envíos</u> . Las etiquetas deberían ser fácilmente identificables y colocarse en lugares visibles.	P	<b>OIRSA</b> El término no conforme es más utilizado en aspectos de calidad, en el ámbito fitosanitario y de acuerdo a la NIMF 13 es incumplimiento de los requisitos fitosanitarios en los envíos. <i>Category : TECHNICAL</i>

502	104	Los productos podrán etiquetarse con números de lote de tratamiento u otros medios de identificación (por ejemplo, lugar de embalaje y ubicación de las instalaciones de tratamiento, fechas de embalaje y de tratamiento) que permitan el rastreo <del>de del incumplimiento en</del> los <del>envíos no conformes</del> envíos. Las etiquetas deberían ser fácilmente identificables y colocarse en lugares visibles.	P	<b>Costa Rica</b> El término no conforme es más utilizado en aspectos de calidad, en el ámbito fitosanitario y de acuerdo a la NIMF 13 es incumplimiento de los requisitos fitosanitarios en los envíos <i>Category : TECHNICAL</i>
<b>5.6 Monitoring and auditing</b>				
503	105	<b>5.6 Monitoring and auditing</b>	C	<b>European Union</b> This section 5.6 about "Monitoring and auditing" could be moved just after the section section 5.1 about "Authorization of entities" for a more logical order, in consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
504	105	<b>5.6 Monitoring and auditing</b>	C	<b>EPPO</b> This section 5.6 about "Monitoring and auditing" could be moved just after the section section 5.1 about "Authorization of entities" for a more logical order, in consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
505	105	<b>5.6.4 Monitoring and auditing</b>	P	<b>Libya</b> <i>Category : EDITORIAL</i>
506	105	<b>5.6.4 Monitoring and auditing</b>	P	<b>Japan</b> <i>Category : EDITORIAL</i>
507	105	<b>5.6.4 Monitoring and auditing</b>	P	<b>APPPC</b> 66) Thailand (5 Sep 2018 12:42 PM) re-numbering <i>Category : EDITORIAL</i>
508	105	<b>5.6.4 Monitoring and auditing</b>	P	<b>NEPPO</b> <i>Category : EDITORIAL</i>
509	105	<b>5.6.4 Monitoring and auditing</b>	P	<b>Iran</b> <i>Category : EDITORIAL</i>
510	105	<b>5.6.4 Monitoring and auditing</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
511	106	The <u>NPPO-NPPO, or where appropriate, other government department or agency</u> of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment programmes are properly designed to	P	<b>Canada</b> In Canada, the NPPO does not always authorize treatment entities or supervise the treatment entity though an authorized entity. Treatment entities, like carbon dioxide applicators or fumigation applicators are licensed by other government departments, which have specific legislation and requirements.

		ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.		<i>Category : SUBSTANTIVE</i>
512	106	The NPPO of the country in which the treatment is conducted <del>or initiated</del> is responsible for monitoring and auditing the <del>treatment</del> facilities and providers. Continuous supervision of treatments should not be <del>necessary provided there is a system for continuous monitoring of the treatment parameters</del> necessary, and <del>provided</del> treatment programmes are properly designed <del>and can be verified</del> to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>European Union</b> More precise wording and requirements, which come from the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure". <i>Category : TECHNICAL</i>
513	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment <del>programmes-procedures</del> are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>European Union</b> "Treatment programme" is a confusing term because it may be confused with the Glossary term "treatment schedule". It is suggested to use the term "treatment procedures" which makes it clear what is intended here. <i>Category : TECHNICAL</i>
514	106	The NPPO of the country in which the treatment is conducted <del>or initiated</del> is responsible for monitoring and auditing the <del>treatment</del> facilities and providers. Continuous supervision of treatments should not be <del>necessary provided there is a system for continuous monitoring of the treatment parameters</del> necessary, and <del>provided</del> treatment <del>programmes-procedures</del> are properly designed <del>and can be verified</del> to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>EPPO</b> "Treatment programme" is a confusing term because it may be confused with the Glossary term "treatment schedule". It is suggested to use the term "treatment procedures" which makes it clear what is intended here.  More precise wording and requirements, which come from the draft ISPM on "Requirements for the use of temperature as a phytosanitary measure". <i>Category : TECHNICAL</i>
515	106	<del>The</del> To ensure that the treatment is applied effectively, the NPPO of the country in which the treatment is conducted is responsible for <del>the oversight</del> monitoring and auditing <del>the facilities to sufficiently detect and providers</del> correct deficiencies promptly. Continuous supervision of treatments <del>by the NPPO or the authorised entity</del> should not be necessary <del>provided there is a system for continuous monitoring of if the treatment parameters, and treatment programmes are system</del> is properly designed to ensure a high degree of system integrity for the facility, process and commodity <del>in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly</del> being treated.	P	<b>PPPO</b> <i>Category : SUBSTANTIVE</i>



516	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly. <u>The auditing should be done at least one time a year.</u>	P	<b>Libya</b> The auditing should be done at least one time a year. <i>Category : SUBSTANTIVE</i>
517	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary <u>rather, there should be periodic supervision</u> provided there is a system for continuous monitoring of the treatment parameters, and treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>Mozambique</b> For constance <i>Category : TECHNICAL</i>
518	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment <del>parameters</del> <u>parameters outlined in a written document agreed upon by both importing and exporting NPPOs (e.g. Standard Operating Procedure, compliance agreement, or work plans).</u> Also, the treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>United States of America</b> Sentence inserted to show that written guidance is required to mandate compliance. <i>Category : TECHNICAL</i>
519	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly. <u>The auditing should be done at least one time a year.</u>	P	<b>NEPPO</b> <i>Category : SUBSTANTIVE</i>
520	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment <del>programmes-protocols</del> are properly designed to ensure a high degree of system integrity for the facility,	P	<b>Costa Rica</b> <i>Category : TECHNICAL</i>



		process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.		
521	106	The NPPO of the country in which the treatment is conducted is responsible for monitoring and auditing the facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment programmes are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	C	<b>Singapore</b> Obsolete last sentence in this paragraph. Category : <i>SUBSTANTIVE</i>
522	106	The NPPO of the country in which the treatment is conducted <u>or initiated</u> is responsible for monitoring and auditing the <u>application of phytosanitary treatments, the</u> facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment <u>programmes-protocols</u> are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>Argentina</b> For consistency. Category : <i>TECHNICAL</i>
523	106	The NPPO of the country in which the treatment is conducted <u>or initiated</u> is responsible for monitoring and auditing the <u>application of phytosanitary treatments, the</u> facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment <u>programmes-protocols</u> are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>Uruguay</b> For consistency Category : <i>TECHNICAL</i>
524	106	The NPPO of the country in which the treatment is conducted <u>or initiated</u> is responsible for monitoring and auditing the <u>application of phytosanitary treatments, the</u> facilities and providers. Continuous supervision of treatments should not be necessary provided there is a system for continuous monitoring of the treatment parameters, and treatment <u>programmes-protocols</u> are properly designed to ensure a high degree of system integrity for the facility, process and commodity in question. The monitoring and auditing should be sufficient to detect and correct deficiencies promptly.	P	<b>COSAVE</b> For consistency. Category : <i>TECHNICAL</i>
525	107	Parameters to consider when verifying treatment programmes include meeting requirements for treatment atmospheric conditions, treatment time, temperature, <u>humidity-humidity, pressure</u> and ventilation. A modified atmosphere treatment protocol should include the following to ensure that the treatment schedule is met:	P	<b>Viet Nam</b> "Pressure" is also one of parameters to affect treatment programmes. Category : <i>TECHNICAL</i>

526	107	<del>Parameters to consider when verifying treatment programmes include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity and ventilation. A modified atmosphere treatment protocol. Treatment providers should include meet monitoring and auditing requirements set by the following to ensure that the treatment schedule is met</del> NPPO. These requirements may include:	P	<b>European Union</b> This paragraph is redundant with paragraphs 55 and 82. If ventilation is an important parameter it should appear earlier in the standard (e.g. in paragraphs 55 and 82).  The proposed new paragraph comes from paragraph 146 the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". For the use of "treatment providers" instead of "treatment entities", see the comment on "entities" in paragraph 93.  <i>Category : TECHNICAL</i>
527	107	<del>Parameters to consider when verifying treatment programmes include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity and ventilation. A modified atmosphere treatment protocol. Treatment providers should include meet monitoring and auditing requirements set by the following to ensure that the treatment schedule is met</del> NPPO. These requirements may include:	P	<b>EPPO</b> This paragraph is redundant with paragraphs 55 and 82. If ventilation is an important parameter it should appear earlier in the standard (e.g. in paragraphs 55 and 82).  The proposed new paragraph comes from paragraph 146 the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". For the use of "treatment providers" instead of "treatment entities", see the comment on "entities" in paragraph 93.  <i>Category : TECHNICAL</i>
528	107	Parameters to consider when verifying treatment programmes include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity and ventilation. A modified atmosphere treatment protocol should include <u>a monitoring procedure that is conducted by the following</u> NPPO at the facility where the treatment occurs and a system to <u>ensure maintain and archive treatment records that can be accessed by the</u> <del>treatment schedule is met</del> NPPO.	P	<b>PPPO</b>  <i>Category : SUBSTANTIVE</i>
529	107	Parameters to consider when verifying treatment programmes include meeting requirements for treatment atmospheric conditions, treatment time, temperature, <del>humidity</del> <u>humidity, pressure</u> and ventilation. A modified atmosphere treatment protocol should include the following to ensure that the treatment schedule is met:	P	<b>Japan</b> "Pressure" is also one of parameters to affect treatment programmes. <i>Category : TECHNICAL</i>
530	107	Parameters to consider when verifying treatment programmes include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity, <u>pressure</u> and ventilation. A modified atmosphere treatment protocol should include the following to ensure that the treatment schedule is met:	P	<b>APPPC</b> 80) Japan (8 Sep 2018 2:57 AM) "Pressure" is also one of parameters to affect treatment programmes.  <i>Category : TECHNICAL</i>
531	107	Parameters to consider when verifying <del>treatment programmes</del> <u>treatments</u> include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity and ventilation. A modified atmosphere treatment protocol should include the following to ensure that the treatment schedule is met:	P	<b>Argentina</b> For consistency. <i>Category : TECHNICAL</i>

532	107	Parameters to consider when verifying treatment <del>programmes-protocols</del> include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity and ventilation. A modified atmosphere treatment protocol should include the following to ensure that the treatment schedule is met:	P	<b>Uruguay</b> For consistency Category : <i>TECHNICAL</i>
533	107	Parameters to consider when verifying <del>treatment-programmes-treatments</del> include meeting requirements for treatment atmospheric conditions, treatment time, temperature, humidity and ventilation. A modified atmosphere treatment protocol should include the following to ensure that the treatment schedule is met:	P	<b>COSAVE</b> For consistency. Category : <i>TECHNICAL</i>
534	107	Al verificar los programas de tratamiento han de considerarse los parámetros siguientes: el cumplimiento de los requisitos relativos a las condiciones atmosféricas del tratamiento, la duración del tratamiento, la temperatura, la humedad <i>relativa</i> y la ventilación. Un protocolo de tratamiento en atmósfera modificada debería incluir lo siguiente para garantizar su cumplimiento:	P	<b>OIRSA</b> Termino adecuado Category : <i>TECHNICAL</i>
535	107	Al verificar los programas de tratamiento han de considerarse los parámetros siguientes: el cumplimiento de los requisitos relativos a las condiciones atmosféricas del tratamiento, la duración del tratamiento, la temperatura, la humedad <i>relativa</i> y la ventilación. Un protocolo de tratamiento en atmósfera modificada debería incluir lo siguiente para garantizar su cumplimiento:	P	<b>Costa Rica</b> Término correcto Category : <i>TECHNICAL</i>
536	107	Al verificar los programas de tratamiento han de considerarse los parámetros siguientes: el cumplimiento de los requisitos relativos a las condiciones atmosféricas del tratamiento, la duración del tratamiento, la temperatura, la humedad y la ventilación. Un protocolo de tratamiento en atmósfera modificada debería incluir lo siguiente para garantizar su cumplimiento:	C	<b>Guatemala</b> en la version de ingles cambiar la palabra protocolo por programa Category : <i>TRANSLATION</i>
537	108	a treatment monitoring protocol that is conducted by the <del>NPPO-NPPO, or where appropriate, other government department or agency</del> at the facility where the treatment occurs	P	<b>Canada</b> To highlight the role of other departments or agencies that license treatment entities. Category : <i>SUBSTANTIVE</i>
538	108	<del>a treatment monitoring protocol that is conducted by the NPPO at the facility where the treatment occurs</del>	P	<b>European Union</b> Rather confusing because this requirement is for NPPOs while the other requirements are for treatment providers. This change is consistent with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". Category : <i>TECHNICAL</i>
539	108	<del>a treatment monitoring protocol that is conducted by the NPPO at the facility where the treatment occurs</del>	P	<b>EPPO</b> Rather confusing because this requirement is for NPPOs while the other requirements are for treatment providers. This change is consistent with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". Category : <i>TECHNICAL</i>
540	108	<del>a treatment monitoring protocol that is conducted by the NPPO at the facility where the treatment occurs</del>	P	<b>PPPO</b> included in revised text Category : <i>SUBSTANTIVE</i>

541	108	a treatment monitoring protocol that is conducted by the NPPO at the facility where the treatment <del>occurs</del> <u>is initiated or conducted</u>	P	<b>APPPC</b> 73) Thailand (5 Sep 2018 12:45 PM) For consistency, the term "initiated or conducted should be used in place of the term "occurs". <i>Category : EDITORIAL</i>
542	108	a treatment monitoring protocol that is conducted by the NPPO at the facility where the treatment <del>occurs</del> <u>is initiated or conducted</u>	P	<b>Thailand</b> For consistency, the term "initiated or conducted should be used in place of the term "occurs". <i>Category : EDITORIAL</i>
543	109	<del>audit provisions</del> <u>access for the NPPO for audit</u> , including unannounced visits	P	<b>European Union</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
544	109	<del>audit provisions</del> <u>access for the NPPO for audit</u> , including unannounced visits	P	<b>EPPO</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
545	109	<del>audit provisions, including unannounced visits</del>	P	<b>PPPO</b> <i>Category : SUBSTANTIVE</i>
546	109	audit provisions, including <del>unannounced visits</del> <u>pre-arranged visits as identified in work plans or compliance agreements</u>	P	<b>United States of America</b> <i>Category : TECHNICAL</i>
547	109	audit provisions, including unannounced visits	C	<b>United States of America</b> Unannounced visit may look at general parameters associated with the treatment. Otherwise, unannounced visits may be counter-productive and critical records or staff may not available. Substitute the words " pre-arranged" <i>Category : TECHNICAL</i>
548	109	disposiciones relativas a la <del>auditoría</del> <u>auditoría por parte de la ONPF</u> , incluso la realización de visitas no anunciadas;	P	<b>OIRSA</b> La entidad de tratamiento podrá implementar auditorías internas en la que puede subcontratar a una empresa especializada que también podría hacerle visitas no anunciadas. A fin de evitar un vacío o mala interpretación en este punto de la futura norma, se recomienda esclarecer añadiendo "por parte de la ONPF". <i>Category : SUBSTANTIVE</i>
549	110	a system to maintain and archive treatment records and provide access to NPPOs, <u>or where appropriate, other government department or agency</u>	P	<b>Canada</b> To highlight the role of other department or agency that license treatment entities. <i>Category : SUBSTANTIVE</i>
550	110	a system to maintain and archive treatment records and provide <u>NPPOs with</u> access to <u>NPPOs</u> <del>these</del>	P	<b>European Union</b> More precise wording and consistency with the draft ISPM on

				"Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
551	110	a system to maintain and archive treatment records and provide <u>NPPOs with</u> access to <u>NPPOs</u> <del>these</del>	P	<b>EPPO</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
552	110	<del>a system to maintain and archive treatment records and provide access to NPPOs</del>	P	<b>PPPO</b>  <i>Category : SUBSTANTIVE</i>
553	110	a system <del>to maintain and archive</del> <u>for record keeping of</u> treatment records and provide access to NPPOs	P	<b>Iran</b>  <i>Category : EDITORIAL</i>
554	111	corrective action to be taken in the event of <del>non-compliance</del> <u>nonconformance</u> .	P	<b>Canada</b> If the programme requirements are not met, it is nonconformance. Non-compliance is not meeting the requirements of the importing country. <i>Category : TECHNICAL</i>
555	111	<del>corrective action to be taken in the event of non-compliance.</del>	P	<b>PPPO</b>  <i>Category : SUBSTANTIVE</i>
<b>6. Documentation</b>				
556	112	<b>67. Documentation</b>	P	<b>APPPC</b> (67) Thailand (5 Sep 2018 12:43 PM) r-numbering  <i>Category : EDITORIAL</i>
557	112	<b>67. Documentation</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
558	113	The <u>NPPO-NPPO, or where appropriate, other government department or agency</u> of the country in which the facility is located is responsible for ensuring that treatment providers keep appropriate records, such as raw data on treatment parameters recorded during treatments. Accurate record keeping is essential to allow for trace-back capability.	P	<b>Canada</b> To highlight the role of other department or agency that licenses treatment entities. <i>Category : SUBSTANTIVE</i>
559	113	The NPPO of the country in which the facility is located is responsible for ensuring that treatment providers <u>maintain documents of procedures and</u> keep appropriate records, such as raw data on treatment parameters recorded during treatments. Accurate record keeping is essential to allow for trace-back capability. <u>The NPPO is also responsible for documentation related to NPPO procedures.</u>	P	<b>Viet Nam</b> In conformity with section 6.1, 6.2 and 6.3. <i>Category : SUBSTANTIVE</i>
560	113	The NPPO of the country in which the facility is located is responsible for ensuring that treatment providers <u>maintain documents of procedures and</u> keep appropriate records, such as raw data on treatment parameters recorded during treatments.	P	<b>Korea, Republic of</b> In conformity with section 6.1, 6.2 and 6.3. <i>Category : SUBSTANTIVE</i>

		Accurate record keeping is essential to allow for trace-back capability. <u>The NPPO is also responsible for documentation related to NPPO procedures.</u>		
561	113	The NPPO of the country in which the <del>facility-treatment</del> is <del>located-conducted or initiated</del> is responsible for ensuring that treatment providers keep appropriate records, such as raw data on <del>treatment parameters-gas concentrations and temperature</del> recorded during treatments. Accurate record keeping is essential to allow for trace-back capability.	P	<b>European Union</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
562	113	The NPPO of the country in which the <del>facility-treatment</del> is <del>located-conducted or initiated</del> is responsible for ensuring that treatment providers keep appropriate records, such as raw data on <del>treatment parameters-gas concentrations and temperature</del> recorded during treatments. Accurate record keeping is essential to allow for trace-back capability.	P	<b>EPPO</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
563	113	The NPPO of the country in which the facility is located is responsible for ensuring that treatment providers <u>maintain documents of procedures and</u> keep appropriate records, such as raw data on treatment parameters recorded during treatments. Accurate record keeping is essential to allow for trace-back capability. <u>The NPPO is also responsible for documentation related to NPPO procedures.</u>	P	<b>Japan</b> In conformity with section 6.1, 6.2 and 6.3. This proposed change is supported by APPPC as well as by Japan. <i>Category : SUBSTANTIVE</i>
564	113	The NPPO of the country in which the facility is located is responsible for ensuring that treatment providers keep appropriate records, such as raw data on treatment parameters recorded during treatments. Accurate record keeping is essential to allow for trace-back capability.	C	<b>PPPO</b> Inclusion of a timeline on raw data, given that treatments are continuously happening. <i>Category : SUBSTANTIVE</i>
565	113	The NPPO of the country in which the facility is located is responsible for ensuring that treatment providers <u>maintain documents of procedures and</u> keep appropriate records, such as raw data on treatment parameters recorded during treatments. Accurate record keeping is essential to allow for trace-back capability. <u>The NPPO is also responsible for documentation related to NPPO procedures.</u>	P	<b>APPPC</b> (102) APPPC (11 Sep 2018 4:23 AM) In conformity with section 6.1, 6.2 and 6.3. <i>Category : SUBSTANTIVE</i>

#### 6.1 Documentation of procedures

566	114	<b>6.1 Documentation of procedures</b>	C	<b>United States of America</b> is it Documentation of Records related to treatment? 1. Because, the objective of this section is not clear, it seems to mix documentation of the treatment, treatment procedures, treatment records, and training. 2. The entire section is ambiguous and may need to be broken into parts. The section could be divided into the following: Documentation for each single treatment performed, documentation of SOPs, documentation pertaining to record keeping, training.  <i>Category : SUBSTANTIVE</i>
567	114	<b>6.1 Documentation of procedures</b>	P	<b>APPPC</b> Thailand (5 Sep 2018 12:43 PM)



				re-numbering <i>Category : EDITORIAL</i>
568	114	<b>6 7.1 Documentation of procedures</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
569	115	Procedures should be documented to ensure that commodities are treated consistently in accordance with the treatment schedule. Process controls and operational parameters should be established to provide the operational details necessary for <del>a specific approval</del> <u>the authorization</u> of a treatment <del>facility</del> <u>provider</u> . Calibration and quality control programmes should be documented by the treatment provider. As a minimum, they should address the following:	P	<b>European Union</b> More appropriate wording (please see the comment on "entities" in paragraph 93 and the wording of paragraph 95). <i>Category : TECHNICAL</i>
570	115	Procedures should be documented to ensure that commodities are treated consistently in accordance with the treatment schedule. Process controls and operational parameters should be established to provide the operational details necessary for a specific approval of a treatment facility. Calibration and quality control <del>programmes</del> <u>procedures</u> should be documented by the treatment provider. <del>As a minimum, they</del> <u>A written document on procedures</u> should <del>address</del> <u>include</u> the following:	P	<b>European Union</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
571	115	Procedures should be documented to ensure that commodities are treated consistently in accordance with the treatment schedule. Process controls and operational parameters should be established to provide the operational details necessary for <del>a specific approval</del> <u>the authorization</u> of a treatment <del>facility</del> <u>provider</u> . Calibration and quality control <del>programmes</del> <u>procedures</u> should be documented by the treatment provider. <del>As a minimum, they</del> <u>A written document on procedures</u> should <del>address</del> <u>include</u> the following:	P	<b>EPPO</b> More precise wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  More appropriate wording (please see the comment on "entities" in paragraph 93 and the wording of paragraph 95). <i>Category : TECHNICAL</i>
572	116	commodity handling procedures before, during and after treatment	C	<b>United States of America</b> Statement is ambiguous, needs further clarification. Is this procedure commodity specific? Doesn't the Standard Operating Procedure (SOP) cover the handling of boxes? Why describe loading and unloading? <i>Category : TECHNICAL</i>
573	117	orientation and configuration of the commodity during treatment	C	<b>United States of America</b> Same comment as above. <i>Category : TECHNICAL</i>
574	118	critical treatment process parameters and the means for <del>their monitoring</del> <u>measuring them</u>	P	<b>European Union</b> More appropriate wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
575	118	critical treatment process parameters and the means for their monitoring <u>- temperature and gas sensor calibration and recording</u>	P	<b>European Union</b> Better location for paragraph 121 and consistency with the draft

				ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
576	118	critical treatment process parameters and the means for <del>their monitoring</del> <u>measuring them</u>  <u>- temperature and gas sensor calibration and recording</u>	P	<b>EPPO</b> Better location for paragraph 121 and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  More appropriate wording and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
577	118	critical treatment process parameters and the means for their monitoring	C	<b>United States of America</b> See comment above. <i>Category : TECHNICAL</i>
578	119	contingency plans and corrective actions to be taken in the event of treatment failure or problems with critical treatment <del>processes</del> <u>parameters</u>	P	<b>European Union</b> More precise wording suggested. <i>Category : EDITORIAL</i>
579	119	contingency plans and corrective actions to be taken in the event of treatment failure or problems with critical treatment <del>processes</del> <u>parameters</u>	P	<b>EPPO</b> More precise wording suggested <i>Category : EDITORIAL</i>
580	120	procedures for handling rejected <del>lots and treatment failures</del> <u>lots</u>	P	<b>European Union</b> Treatment failures are addressed in paragraph 119. Consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
581	120	procedures for handling rejected <del>lots and treatment failures</del> <u>lots</u>	P	<b>EPPO</b> Treatment failures are addressed in paragraph 119. Consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
582	120	procedures for handling rejected lots and treatment failures	C	<b>United States of America</b> Para 119-121 - same concerns as above: statements are ambiguous, are they commodity specific, do they refer to SOPs? <i>Category : TECHNICAL</i>
583	121	<del>temperature and gas sensor calibration and recordings</del>	P	<b>European Union</b> Suggestion to move after paragraph 118 (more logical order and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure"). <i>Category : EDITORIAL</i>
584	121	<del>temperature and gas sensor calibration and recordings</del>	P	<b>EPPO</b> Suggestion to move after paragraph 118 (more logical order and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure"). <i>Category : EDITORIAL</i>
585	121	temperature and gas sensor calibration and <del>recordings</del> <u>recordings as per SOPs and manual</u>	P	<b>PPPO</b> inclusion of SOPs and manual <i>Category : SUBSTANTIVE</i>

586	122	labelling (if required), <del>recordkeeping</del> , <u>record keeping</u> and documentation requirements	P	<b>European Union</b> A blank missing and a useless comma. <i>Category : EDITORIAL</i>
587	122	labelling (if required), <del>recordkeeping</del> , <u>record keeping</u> and documentation requirements	P	<b>EPPO</b> A blank missing and a useless comma. <i>Category : EDITORIAL</i>
588	122	labelling (if required), recordkeeping, and documentation requirements	C	<b>United States of America</b> Should move to a record keeping section. <i>Category : TECHNICAL</i>
589	123	training of personnel.	C	<b>United States of America</b> Should move to record keeping section. <i>Category : TECHNICAL</i>
590	123	la capacitación del personal.	C	<b>Guatemala</b> agregar un ítem que indique que el personal que va realizar esta actividad tengan los conocimientos adecuados en bioseguridad <i>Category : TECHNICAL</i>
<b>6.2 Record keeping</b>				
591	124	<b>67.2 Record keeping</b>	P	<b>APPPC</b> 69) Thailand (5 Sep 2018 12:43 PM) re-numbering <i>Category : EDITORIAL</i>
592	124	<b>6 7.2 Record keeping</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
593	125	Treatment providers should keep records for each treatment application. These records should be made available to the NPPO of the importing or the exporting <del>country-country, or where appropriate, to other government department or agency in the exporting country,</del> when, for example, a trace-back is necessary.	P	<b>Canada</b> To highlight the role of other department or agency that licenses treatment entities. <i>Category : SUBSTANTIVE</i>
594	125	Treatment providers should keep records for each treatment application. These records should be made available to the NPPO of the importing or the exporting country <del>when, for example, auditing and verification purpose or</del> a trace-back is necessary.	P	<b>Viet Nam</b> The end of this paragraph should be amended to be in line with the draft fumigation treatment. <i>Category : EDITORIAL</i>
595	125	Treatment providers should keep records for each treatment application. These records should be made available to the NPPO of the <del>importing or the exporting country when</del> country, <del>for example, a trace-back in which the treatment is necessary</del> conducted or initiated for auditing and verification purposes or trace-back.	P	<b>European Union</b> More appropriate wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
596	125	Treatment providers should keep records for each treatment application. These records should be made available to the NPPO of the <del>importing or the exporting country when, for example, a trace-back in which the treatment is</del>	P	<b>EPPO</b> More appropriate wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>

		<del>necessary</del> conducted or initiated for auditing and verification purposes or trace-back.		
597	125	Treatment providers should keep records for each treatment application. These records should be made available to the NPPO of the importing or the exporting country <del>when</del> country, for <del>example, a trace-back is necessary</del> <u>necessary auditing and verification purpose or trace back</u> .	P	<b>APPPC</b> (103) APPPC (11 Sep 2018 4:24 AM) The end of this paragraph should be amended to be in line with the draft fumigation treatment. 74) Thailand (5 Sep 2018 12:46 PM) The end of this paragraph should be amended to be in line with the draft fumigation treatment.  <i>Category : EDITORIAL</i>
598	125	Treatment providers should keep records for each treatment application. These records should be made available to the NPPO of the importing or the exporting country <del>when</del> , for <del>example, a trace-back is necessary</del> <u>auditing and verification purpose or trace back</u> .	P	<b>Thailand</b> The end of this paragraph should be amended to be in line with the draft fumigation treatment. <i>Category : EDITORIAL</i>
599	125	Los proveedores de tratamientos deberían mantener registros de la aplicación <del>decada-de cada</del> tratamiento. La ONPF del país importador o exportador debería tener acceso a estos registros, por ejemplo cuando fuera necesario realizar un rastreo.	P	<b>OIRSA</b> Separar de cada <i>Category : TRANSLATION</i>
600	125	Los proveedores de tratamientos deberían mantener registros de la aplicación <del>decada-de cada</del> tratamiento. La ONPF del país importador o exportador debería tener acceso a estos registros, por ejemplo cuando fuera necesario realizar un rastreo.	P	<b>Colombia</b> Se sugiere separar la palabra decada por de cada <i>Category : EDITORIAL</i>
601	126	Appropriate records for modified atmosphere treatments as phytosanitary measures should be <del>retained-kept</del> by the treatment provider for at least one year to enable the trace-back of treated lots. Information that may be required to be recorded includes:	P	<b>European Union</b> Better wording. <i>Category : EDITORIAL</i>
602	126	Appropriate records for modified atmosphere treatments as phytosanitary measures should be retained by the treatment provider for at least one year to enable the trace-back of treated lots. <del>Information that Records on individual treatments may be required to be recorded includes</del> <u>include data on:</u>	P	<b>European Union</b> More precise wording adapted from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
603	126	Appropriate records for modified atmosphere treatments as phytosanitary measures should be <del>retained-kept</del> by the treatment provider for at least one year to enable the trace-back of treated lots. <del>Information that Records on individual treatments may be required to be recorded includes</del> <u>include data on:</u>	P	<b>EPPO</b> More precise wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  Better wording <i>Category : EDITORIAL</i>

604	126	Appropriate records for modified atmosphere treatments as phytosanitary measures should be retained by the treatment provider for at least <del>one year</del> <u>two years</u> to enable the trace-back of treated lots. Information that may be required to be recorded includes:	P	<b>IPPC Regional Workshop Africa</b> <i>Category : EDITORIAL</i>
605	127	identification of facility and <del>responsible parties</del> <u>treatment provider</u>	P	<b>European Union</b> More precise wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
606	127	identification of facility and <del>responsible parties</del> <u>treatment provider</u>	P	<b>EPPO</b> More precise wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
607	128	<del>identity of commodities</del> <u>commodity</u> treated	P	<b>European Union</b> Simpler wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
608	128	<del>identity of commodities</del> <u>commodity</u> treated	P	<b>EPPO</b> Simpler wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
609	129	target <u>regulated</u> pest	P	<b>APPPC</b> (42) New Zealand (4 Sep 2018 7:00 AM) <i>Category : EDITORIAL</i>
610	130	packer, grower and <del>identification of the</del> place of production of the commodity	P	<b>European Union</b> Simpler wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
611	130	packer, grower and <del>identification of the</del> place of production of the commodity	P	<b>EPPO</b> Simpler wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
612	130	<u>identification of</u> packer, grower and <del>identification of the</del> place of production of the commodity	P	<b>APPPC</b> 43) New Zealand (4 Sep 2018 7:01 AM) <i>Category : EDITORIAL</i>
613	130	packer, <del>grower-grower, exporter</del> and identification of the place of production of the commodity	P	<b>IPPC Regional Workshop Africa</b> <i>Category : EDITORIAL</i>
614	131	lot <del>size, volume-size</del> and <del>identification</del> <u>volume</u> , including number of articles or packages	P	<b>European Union</b> Simpler wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". Identification is addressed in paragraph 132. <i>Category : EDITORIAL</i>
615	131	lot <del>size, volume-size</del> and <del>identification</del> <u>volume</u> , including number of articles or packages	P	<b>EPPO</b> Simpler wording coming from the draft ISPM on "Requirements for

				the use of fumigation as a phytosanitary measure". Identification is addressed in paragraph 132. <i>Category : EDITORIAL</i>
616	131	lot <del>size, volume-size</del> and <del>identification</del> <u>volume</u> , including number of articles or packages	P	<b>Japan</b> The meaning of "identification" is not clear, so it should be deleted. <i>Category : SUBSTANTIVE</i>
617	131	lot <del>size, volume-size</del> and <del>identification</del> <u>volume</u> , including number of articles or packages	P	<b>APPPC</b> 87) Japan (9 Sep 2018 1:48 AM) <i>Category : SUBSTANTIVE</i>
618	132	<u>treatment number or other</u> identifying markings or <del>characteristics</del> <u>characteristics of the lot</u>	P	<b>European Union</b> Introduction of an interesting element coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". Treatment lot numbers are mentioned in paragraph 104 of the current standard. Addition of "of the lot" to improve clarity. <i>Category : TECHNICAL</i>
619	132	<u>treatment lot number or other</u> identifying markings or <del>characteristics</del> <u>characteristics of the lot</u>	P	<b>EPPO</b> Introduction of an interesting element coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". Treatment lot numbers are mentioned in paragraph 104 of the current standard. <i>Category : TECHNICAL</i>
620	133	date of <u>treatment and name of individual performing the</u> treatment	P	<b>European Union</b> Introduction of an optional element coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
621	133	date of <u>treatment and name of individual performing the</u> treatment	P	<b>EPPO</b> Introduction of an optional element coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : TECHNICAL</i>
622	133	date of <del>treatment</del> <u>treatment and printout</u>	P	<b>PPPO</b> inclusion of printout to date of treatment <i>Category : SUBSTANTIVE</i>
623	133	date of treatment	P	<b>United States of America</b> Include a new bullet after this one on re-treatment when relevant. Also include, moved from the above section, the following bullets: - recordkeeping and documentation requirements - training of personnel <i>Category : TECHNICAL</i>
624	133	date <u>and duration</u> of treatment	P	<b>Iran</b> <i>Category : TECHNICAL</i>
625	134	any observed deviation from the treatment specification.	P	<b>Viet Nam</b> Two additional bullet including equipment calibration records as



		<u>- equipment calibration records - gas concentration, temperature of commodity and atmosphere records (including humidity and pressure if required).</u>		well as record of specific parameters such as gas concentration and temperature of commodity and atmosphere, should be added to complete the necessary recorded information. Records of treatment parameters and calibration data/records should be retained. ISPM 42 also provides that similar treatment parameters should be retained. <i>Category : SUBSTANTIVE</i>
626	134	any observed deviation from the treatment specification. <u>- equipment calibration records</u> <u>- gas concentration, temperature of commodity and atmosphere records (including humidity and pressure if required).</u>	P	<b>Korea, Republic of</b> Two additional bullet including equipment calibration records as well as record of specific parameters such as gas concentration and temperature of commodity and atmosphere, should be added to complete the necessary recorded information. Records of treatment parameters and calibration data/records should be retained. ISPM 42 also provides that similar treatment parameters should be retained. <i>Category : SUBSTANTIVE</i>
627	134	any observed deviation from the treatment <del>specifications</del> <u>schedule and, where appropriate, subsequent actions taken.</u>	P	<b>European Union</b> More appropriate term ("schedule" is defined in ISPM 5) and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". In case of deviations, the provider should also keep records of action taken. <i>Category : TECHNICAL</i>
628	134	any observed deviation from the treatment <del>specifications</del> <u>schedule and, where appropriate, subsequent actions taken.</u>	P	<b>EPPO</b> More appropriate term (defined in ISPM 5) and consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". In case of deviations, the provider should also keep records of action taken. <i>Category : TECHNICAL</i>
629	134	any observed deviation from the treatment specification. <u>- temperature, gas concentration, other treatment parameters (if required) and time recorded</u> <u>- calibration data</u>	P	<b>Japan</b> Records of treatment parameters and calibration data should be retained. ISPM42 (Requirements for the use of temperature treatments as phytosanitary measures) also states that similar treatment parameters should be retained. <i>Category : TECHNICAL</i>
630	134	any observed deviation from the treatment <del>specifications</del> <u>specification and if it is compliance with SOP.</u>	P	<b>United States of America</b> <i>Category : TECHNICAL</i>
631	134	any observed deviation from the treatment specification. <u>- equipment calibration records</u> <u>- gas concentration, temperature of commodity and atmosphere records (including humidity and pressure if required).</u>	P	<b>APPPC</b> 75) Thailand (5 Sep 2018 12:47 PM) Two additional bullet including equipment calibration records as well as record of specific parameters such as gas concentration and temperature of commodity and atmosphere, should be added to complete the necessary recorded information. <i>Category : SUBSTANTIVE</i>

632	134	any observed deviation from the treatment specification.  <u>- temperature, gas concentration, other treatment parameters (if required) and time recorded</u> <u>- calibration data</u>	P	<b>APPPC</b> (81) Japan (8 Sep 2018 3:12 AM) Records of treatment parameters and calibration data should be retained. ISPM42 also provides that similar treatment parameters should be retained.  <i>Category : TECHNICAL</i>
633	134	any observed deviation from the treatment specification.  <u>- equipment calibration records</u> <u>- gas concentration, temperature of commodity and atmosphere records (including humidity and pressure if required).</u>	P	<b>APPPC</b> Category : SUBSTANTIVE (104) APPPC (11 Sep 2018 4:29 AM) Two additional bullet including equipment calibration records as well as record of specific parameters such as gas concentration and temperature of commodity and atmosphere, should be added to complete the necessary recorded information. Records of treatment parameters and calibration data/records should be retained. ISPM 42 also provides that similar treatment parameters should be retained.  <i>Category : SUBSTANTIVE</i>
634	134	any observed deviation from the treatment <del>specifications</del> <u>schedule</u> .	P	<b>Costa Rica</b> Glossary term.  <i>Category : TECHNICAL</i>
635	134	any observed deviation from the treatment specification.  <u>- equipment calibration records</u> <u>- gas concentration, temperature of commodity and atmosphere records (including humidity and pressure if required).</u>	P	<b>Thailand</b> Two additional bullet including equipment calibration records as well as record of specific parameters such as gas concentration and temperature of commodity and atmosphere, should be added to complete the necessary recorded information.  <i>Category : SUBSTANTIVE</i>
636	134	any observed deviation from the treatment <del>specifications</del> <u>schedule</u> .	P	<b>Argentina</b> Glossary term. <i>Category : TECHNICAL</i>
637	134	any observed deviation from the treatment <del>specification</del> <u>schedule</u> .	P	<b>Uruguay</b> Glossary term <i>Category : TECHNICAL</i>
638	134	any observed deviation from the treatment <del>specifications</del> <u>schedule</u> .	P	<b>COSAVE</b> Glossary term. <i>Category : TECHNICAL</i>
639	134	cualquier desviación observada respecto <del>de la especificación</del> del <u>protocolo del</u> tratamiento.	P	<b>Costa Rica</b> redacción más apropiada <i>Category : TECHNICAL</i>
<b>6.3 Documentation by the NPPO</b>				
640	135	<b>67.3 Documentation by the NPPO</b>	P	<b>APPPC</b> 70) Thailand (5 Sep 2018 12:43 PM) re-numbering  <i>Category : EDITORIAL</i>

641	135	<b>6 7.3 Documentation by the NPPO</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
642	136	All NPPO procedures should be appropriately documented and records, including those of monitoring inspections made and <del>phytosanitary</del> <u>Phytosanitary</u> certificates issued should be maintained for at least one year. In cases of non-compliance or new or unexpected phytosanitary situations, documentation should be made available upon request as described in ISPM 13 ( <i>Guidelines for the notification of non-compliance and emergency action</i> ).	P	<b>Ghana</b>  <i>Category : EDITORIAL</i>
643	136	All NPPO procedures should be appropriately documented and <del>records</del> <u>recorded</u> , including those of monitoring inspections made and phytosanitary certificates issued should be maintained for at least one year. In cases of non-compliance or new or unexpected phytosanitary situations, documentation should be made available upon request as described in ISPM 13 ( <i>Guidelines for the notification of non-compliance and emergency action</i> ).	P	<b>Libya</b>  <i>Category : EDITORIAL</i>
644	136	All NPPO procedures should be appropriately documented and <del>records</del> <u>recorded</u> , including those of monitoring inspections made and phytosanitary certificates issued should be maintained for at least one year. In cases of non-compliance or new or unexpected phytosanitary situations, documentation should be made available upon request as described in ISPM 13 ( <i>Guidelines for the notification of non-compliance and emergency action</i> ).	P	<b>NEPPO</b>  <i>Category : EDITORIAL</i>
<b>7. Inspection</b>				
645	137	<b>78. Inspection</b>	P	<b>APPPC</b> 71) Thailand (5 Sep 2018 12:44 PM) re-numbering  <i>Category : EDITORIAL</i>
646	137	<b>7 8. Inspection</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
647	137	<b>7. Inspección</b>	P	<b>OIRSA</b> Ya existe una norma específica de inspección y es innecesario un ítem sobre este particular. No aporta a la norma. <i>Category : SUBSTANTIVE</i>
648	138	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider <del>if whether</del> their survival indicates a treatment failure and <del>whether</del> additional phytosanitary measures may be necessary.	P	<b>European Union</b> Improvement. <i>Category : EDITORIAL</i>
649	138	Inspection <del>is should be</del> carried out <u>by the NPPO of the exporting country, and may be carried out by the NPPO of the importing country,</u> to determine compliance with phytosanitary import requirements. Where live non-target pests are found after	P	<b>European Union</b> More appropriate wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".

		treatment, the NPPO should consider if their survival indicates a treatment failure and whether additional phytosanitary measures may be necessary.		<i>Category : SUBSTANTIVE</i>
650	138	Inspection <del>is should be</del> carried out <del>by the NPPO of the exporting country, and may be carried out by the NPPO of the importing country,</del> to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider <del>if whether</del> their survival indicates a treatment failure and <del>whether</del> additional phytosanitary measures may be necessary.	P	<b>EPPO</b> More appropriate wording coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".  Improvement <i>Category : SUBSTANTIVE</i>
651	138	Inspection is carried out to determine compliance with <del>phytosanitary</del> <b>Phytosanitary</b> import requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival indicates a treatment failure and whether additional phytosanitary measures may be necessary.	P	<b>Ghana</b>  <i>Category : EDITORIAL</i>
652	138	Inspection is carried out to determine compliance with phytosanitary <del>import requirements</del> <b>requirements of imported country</b> . Where live non-target pests are found after treatment, the NPPO should consider if their survival indicates a treatment failure and whether additional phytosanitary measures may be necessary.	P	<b>Libya</b>  <i>Category : EDITORIAL</i>
653	138	Inspection is carried out to determine compliance with phytosanitary import requirements. Where live non-target pests are found after treatment, the NPPO should consider if their survival indicates a treatment failure and whether additional phytosanitary measures may be necessary.	C	<b>United States of America</b> Clarify whether importing or exporting NPPO conducts inspection. See US comment in paragraph 141. <i>Category : TECHNICAL</i>
654	138	Inspection is carried out to determine compliance with <del>phytosanitary import requirements</del> <b>phytosanitary requirements of imported country</b> . Where live non-target pests are found after treatment, the NPPO should consider if their survival indicates a treatment failure and whether additional phytosanitary measures may be necessary.	P	<b>NEPPO</b>  <i>Category : EDITORIAL</i>
655	138	<del>La finalidad de la inspección es comprobar el cumplimiento de los requisitos fitosanitarios de importación. Cuando se detecten, después del tratamiento, plagas vivas distintas de la plaga objetivo, la ONPF debería considerar si su supervivencia indica la ineficacia del tratamiento y si podrán ser necesarias otras medidas fitosanitarias.</del>	P	<b>OIRSA</b> Ya existe una norma específica de inspección y es innecesario un ítem sobre este particular. No aporta a la norma. <i>Category : SUBSTANTIVE</i>
656	139	The NPPO of the importing country may <del>inspect-check</del> documentation and records for treatments conducted during transport to determine compliance with phytosanitary import requirements.	P	<b>European Union</b> More appropriate term. <i>Category : EDITORIAL</i>
657	139	The NPPO of the importing country may <del>inspect-check</del> documentation and records for treatments conducted during transport to determine compliance with phytosanitary import requirements.	P	<b>EPPO</b> More appropriate term <i>Category : EDITORIAL</i>

658	139	<del>La ONPF del país importador podrá inspeccionar la documentación y los registros de los tratamientos realizados durante el transporte para determinar el cumplimiento de los requisitos fitosanitarios de importación.</del>	P	<b>OIRSA</b> Ya existe una norma específica de inspección y es innecesario un ítem sobre este particular. No aporta a la norma. <i>Category : SUBSTANTIVE</i>
659	139	La ONPF del país importador podrá <del>inspeccionar</del> <b>revisar</b> la documentación y los registros de los tratamientos realizados durante el transporte para determinar el cumplimiento de los requisitos fitosanitarios de importación.	P	<b>Costa Rica</b> Termino correcto, el termino inspección incluye prueba y a la documentación no podría realizarse <i>Category : TECHNICAL</i>
<b>8. Responsibilities</b>				
660	140	<b>89. Responsibilities</b>	P	<b>APPPC</b> (72) Thailand (5 Sep 2018 12:44 PM) re-numbering <i>Category : EDITORIAL</i>
661	140	<b>8 9. Responsibilities</b>	P	<b>Thailand</b> re-numbering <i>Category : EDITORIAL</i>
662	140	<b>8. Responsabilidades</b>	P	<b>OIRSA</b> A lo largo de la propuesta se establecen las responsabilidades de las partes involucradas y es innecesario ser reiterativo <i>Category : SUBSTANTIVE</i>
663	141	<p>The NPPO of the country in which the treatment is initiated or conducted is responsible for the <del>evaluation, approval</del> <b>evaluation</b> and <del>auditing approval</del> <b>approval</b> of modified atmosphere treatments as <del>a</del> phytosanitary <del>measures, including those measure. The NPPO should audit the fumigation performed by the NPPO itself and by other authorized treatment entities. In cases where NPPOs do not authorize modified atmosphere treatment entities, other government department or agencies should audit the modified atmosphere treatment performed by the licensed entity.</del> <b>measure. The NPPO should audit the fumigation performed by the NPPO itself and by other authorized treatment entities. In cases where NPPOs do not authorize modified atmosphere treatment entities, other government department or agencies should audit the modified atmosphere treatment performed by the licensed entity.</b> However, when treatments are conducted or completed during transport, the <del>NPPO</del> <b>NPPO, or, where appropriate, other government department or agency</b> of the exporting country is usually responsible for authorizing <del>or licensing</del> <b>the entity</b> applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. <del>The NPPO of the exporting country is responsible when modified atmosphere treatment applied during transport is used for phytosanitary certification.</del></p> <p>To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities</p>	P	<b>Canada</b> To highlight the role of other department or agency that licenses treatment entities. <i>Category : SUBSTANTIVE</i>

		should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.		
664	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of <u>the application of</u> modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of <u>operators/entities</u> , and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>Viet Nam</b> In conformity with section 5.1. "Operators" include "entities". Category : <i>SUBSTANTIVE</i>
665	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of <u>the application of</u> modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of <u>operators/entities</u> , and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>Korea, Republic of</b> In conformity with section 5.1. "Operators" include "entities". Category : <i>SUBSTANTIVE</i>
666	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. <u>However, when</u> <del>When</del> treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the	P	<b>European Union</b> Clearer. Category : <i>EDITORIAL</i>



		importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.		
667	141	<p>The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met.</p> <p><del>To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.</del></p> <p><u>To the extent necessary, the NPPO should cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. The respective responsibilities of the NPPO and the other regulatory agencies should be identified to avoid requirements that are overlapping, conflicting, inconsistent or unjustified.</u></p>	P	<p><b>European Union</b> Creation of a new paragraph for clarity, in consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".</p> <p>The paragraph has also been modified to improve clarity and follow more logically from the introductory words 'to the extent necessary'.</p> <p>Category : EDITORIAL</p>
668	141	<p>The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized <del>entities</del><u>treatment providers</u>. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the <del>entity</del><u>treatment provider</u> applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is</p>	P	<p><b>European Union</b> Please see the comment on "entities" in paragraph 93. Category : TECHNICAL</p>

		the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of <del>operators, treatment providers</del> and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.		
669	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by <u>the NPPO itself or by</u> other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>European Union</b> Introduction of a precision coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". The word "other" is not justified otherwise. <i>Category : TECHNICAL</i>
670	141	The NPPO of the country in which the treatment is <del>initiated or</del> conducted <u>or initiated</u> is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>European Union</b> More logical order and consistency with the rest of the draft standard and with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". <i>Category : EDITORIAL</i>
671	141	The NPPO of the country in which the treatment is <del>initiated or</del> conducted <u>or initiated</u> is responsible for the evaluation, approval and auditing of modified	P	<b>EPPO</b> More logical order and consistency with the rest of the draft

		<p>atmosphere treatments as phytosanitary measures, including those performed by <u>the NPPO itself or by other authorized entities/treatment providers</u>. <del>However, when</del> <u>When</u> treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the <u>entity/treatment provider</u> applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met.</p> <p>To the extent necessary, <del>it is the NPPO's responsibility to</del> <u>NPPO should</u> cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of <del>operators, treatment providers</del> and the approval of modified atmosphere facilities. <del>Their</del> <u>The</u> respective responsibilities <u>of the NPPO and the other regulatory agencies</u> should be identified to avoid requirements that are overlapping, conflicting, inconsistent or <del>not technically justified/unjustified</del>.</p>	<p>standard and with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".</p> <p>Introduction of a precision coming from the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure". The word "other" is not justified otherwise.</p> <p>Please see the comment on "entities" in paragraph 93.</p> <p>Creation of a new paragraph for clarity, in consistency with the draft ISPM on "Requirements for the use of fumigation as a phytosanitary measure".</p> <p>The paragraph has also been modified to improve clarity and follow more logically from the introductory words 'to the extent necessary'. This comment was made at the ECA Regional Workshop and endorsed by the EPPO Panel.</p> <p>Clearer Category : <i>EDITORIAL</i></p>
672	141	<p>The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. <del>–.</del></p> <p>To the extent necessary, <del>it is the NPPO's responsibility to</del> <u>NPPO should</u> cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or <del>not technically justified/unjustified</del>.</p>	<p>P <b>IPPC Regional Workshop Central Asia &amp; Central Europe</b></p> <p>With the improvements suggested the section reads in Russian: В случае возникновения необходимости НОКЗР должна сотрудничать с другими национальными и международными регулирующими органами, занимающимися разработкой, утверждением и безопасностью применения обработок с регулируемым составом газовой среды в качестве фитосанитарных мер, включая обучение и аттестацию персонала, проводящего обработку, уполномочивание операторов и утверждение сооружений с регулируемым составом газовой среды. Следует определить их соответствующие обязанности во избежание таких требований, как дублирование, противоречия, непоследовательного или необоснованности.</p> <p>Category : <i>TECHNICAL</i></p>
673	141	<p>The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met.</p> <p>To the extent necessary, it is the NPPO's responsibility to cooperate with other</p>	<p>P <b>Japan</b></p> <p>In conformity with section 5.1. "Operators" include "entities". This proposed change is supported by APPPC as well as by Japan</p> <p>Category : <i>SUBSTANTIVE</i></p>

		national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of <del>operators/entities</del> , and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.		
674	141	The NPPO of the country in which the treatment is <del>initiated or</del> conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. <del>However, when treatments are conducted or completed during transport, the</del> The NPPO of the <del>exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the</del> importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>United States of America</b> Are there instances when modified atmosphere treatments are conducted in transit, being initiated in the exporting country? Category : <i>TECHNICAL</i>
675	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, <del>it is the NPPO's responsibility</del> <u>NPPO of the exporting country is responsible</u> to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>APPPC</b> (46) New Zealand (4 Sep 2018 7:05 AM) Category : <i>EDITORIAL</i>
676	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of <u>the application of</u> modified atmosphere treatments as phytosanitary measures, including those performed by	P	<b>APPPC</b> 105) APPPC (11 Sep 2018 4:30 AM) In conformity with section 5.1. "Operators" include "entities". (82) Japan (8 Sep 2018 3:18 AM)

		other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of <u>operatorstreatment entities</u> , and the approval of modified atmosphere facilities. Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.		In conformity with section 5.1. "Operators" include "entities". (47) New Zealand (4 Sep 2018 7:05 AM)  <i>Category : SUBSTANTIVE</i>
677	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. <del>To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operatorstreatment entities, and the approval of modified atmosphere facilities.</del> Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>Argentina</b> Treatment schedule glossary term should be used. Text deleted because cooperation with international organization is outside the scope of this standard that deals with application of MA treatments. Operators replaced by entities for consistency. <i>Category : TECHNICAL</i>
678	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. <del>To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operatorstreatment entities, and the approval of modified atmosphere facilities.</del>	P	<b>Uruguay</b> Text deleted because cooperation with international organizations is outside the scope of this standard that deals with application of MA treatments. Operators replaced by entities for consistency. <i>Category : TECHNICAL</i>



		Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.		
679	141	The NPPO of the country in which the treatment is initiated or conducted is responsible for the evaluation, approval and auditing of modified atmosphere treatments as phytosanitary measures, including those performed by other authorized entities. However, when treatments are conducted or completed during transport, the NPPO of the exporting country is usually responsible for authorizing the entity applying the treatment during transport, and the NPPO of the importing country is responsible for verifying if the treatment requirements have been met. <del>To the extent necessary, it is the NPPO's responsibility to cooperate with other national and international regulatory agencies concerned with the development, approval and safety of the modified atmosphere treatment, including the training and certification of personnel conducting the treatment, the authorization of operators, treatment entities and the approval of modified atmosphere facilities.</del> Their respective responsibilities should be identified to avoid requirements that are overlapping, conflicting, inconsistent or not technically justified.	P	<b>COSAVE</b> Treatment schedule glossary term should be used. Text deleted because cooperation with international organization is outside the scope of this standard that deals with application of MA treatments. Operators replaced by entities for consistency. <i>Category : TECHNICAL</i>
680	141	<del>La ONPF del país en el que se inicia o se realiza el tratamiento tiene el cometido de evaluar, aprobar y auditar los tratamientos en atmósfera modificada como medidas fitosanitarias, incluidos los realizados por otras entidades autorizadas. No obstante, cuando los tratamientos se realizan o se completan durante el transporte, la ONPF del país exportador tiene habitualmente el cometido de autorizar a la entidad que aplica el tratamiento durante el transporte, y la ONPF del país importador tiene el cometido de verificar si se han cumplido los requisitos del tratamiento. En la medida en que sea necesario, la ONPF tiene el cometido de cooperar con otros organismos de reglamentación nacionales e internacionales responsables del desarrollo, la aprobación y la seguridad del tratamiento en atmósfera modificada, incluidos la formación y certificación del personal que realiza el tratamiento, la autorización de los operadores y la aprobación de las instalaciones de atmósfera modificada. Deberían identificarse sus responsabilidades respectivas para evitar que haya requisitos superpuestos, contradictorios, incoherentes o que no estén justificados técnicamente.</del>	P	<b>OIRSA</b> A lo largo de la propuesta se establecen las responsabilidades de las partes involucradas y es innecesario ser reiterativo <i>Category : SUBSTANTIVE</i>
681	142	<b>Potential implementation issues</b>	C	<b>Jamaica</b> Capacity of some countries to implement the standard may be limited due to lack of technological and technical capacity. This is a new technology for the Caribbean region and will require new research, as some effects of the standards implementation are still unknown (e.g. quality, taste and shelf life of the products). <i>Category : SUBSTANTIVE</i>



682	142	<b>Potential implementation issues</b>	C	<p><b>Jamaica</b></p> <p>Would this treatment affect food quality example the taste. This should be considered even though it is not a phytosanitary issue. Capacity of some countries to implement the standard may be limited due to lack of facilities and expertise.</p> <p>This would represent a new technology for the Caribbean region and will require new research as some effects of the standard implementation are still unknown eg quality and shelf life of the product.</p> <p><i>Category : SUBSTANTIVE</i></p>
683	142	<b>Posibles problemas de implementación</b>	C	<p><b>OIRSA</b></p> <ul style="list-style-type: none"> <li>• Capacitación</li> <li>• Disponibilidad de información sobre tratamientos</li> </ul> <p>Atmosferas modificadas con fines fitosanitarios</p> <ul style="list-style-type: none"> <li>• Validación de métodos de tratamiento</li> <li>• Procesos específicos de los tratamientos de Atmosferas modificadas</li> </ul> <p><i>Category : SUBSTANTIVE</i></p>
684	143	This section is not part of the standard. The Standards Committee in May 2016 requested the Secretariat to gather information on any potential implementation issues related to this draft. Please provide details and proposals on how to address these potential implementation issues.	C	<p><b>Caribbean Agricultural Health and Food Safety Agency</b></p> <p>-Would this type of treatment affect food quality (e.g. the taste of mangoes)? This should be considered even if it is not a phytosanitary issue.</p> <p>-Capacity of some countries to implement the standard may be limited due to lack of facilities and expertise. This is a new technology for the Caribbean region. It will require new research, as some effects of the standards implementation are still unknown (e.g. quality and shelf life of the products).</p> <p><i>Category : SUBSTANTIVE</i></p>
685	143	This section is not part of the standard. The Standards Committee in May 2016 requested the Secretariat to gather information on any potential implementation issues related to this draft. Please provide details and proposals on how to address these potential implementation issues.	C	<p><b>United States of America</b></p> <p>To improve implementation , provide some advice on the following points, perhaps in a implementation guidance document or Appendix to this draft:</p> <ol style="list-style-type: none"> <li>1. Recommended number and placement of sensors for MA treatment</li> <li>2. Number and placement of fans, if applicable</li> <li>3. How long to run fans, if applicable</li> <li>4. Guidance on how to certify an enclosure</li> <li>5. Guidance on re-certification of an enclosure</li> <li>6. SOPs, compliance agreements, or work plans</li> <li>7. Re-infestations, can it be retreated?</li> <li>8. Where available from the references, provide in the Appendix examples of actual schedules of the specific pest/commodity treatments with available efficacy data. All this information would be useful to NPPOs who have to access to this information</li> <li>9. Absence of the MA definition is a potential implementation issue, see our general comment.</li> </ol>

				<i>Category : SUBSTANTIVE</i>
686	143	This section is not part of the standard. The Standards Committee in May 2016 requested the Secretariat to gather information on any potential implementation issues related to this draft. Please provide details and proposals on how to address these potential implementation issues.	C	<b>IPPC Regional Workshop Africa</b> 1. Many developing countries including Nigeria may need capacity building for the implementation of this draft ISPM. 2. There must be demonstration of its efficacy and easy acquisition of the treatment facility. 3. Moratorium period after the adoption of the ISPM by CPM.  <i>Category : SUBSTANTIVE</i>