

Committee for Risk Assessment (RAC)

Committee for Socio-economic Analysis (SEAC)

Opinion

on an Annex XV dossier proposing restrictions on
Creosote and Creosote related substances

ECHA/RAC/[Opinion N° will be added]

ECHA/SEAC/[Opinion N° will be added]

Agreed

08/09/2023

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

8 September 2023

Opinion of the Committee for Risk Assessment

and

Opinion of the Committee for Socio-economic Analysis

on an Annex XV dossier proposing restrictions of the manufacture, placing on the market or use of a substance within the EU

Having regard to Regulation (EC) No 1907/2006 of the European Parliament and of the Council 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (the REACH Regulation), and in particular the definition of a restriction in Article 3(31) and Title VIII thereof, the Committee for Risk Assessment (RAC) has adopted an opinion in accordance with Article 70 of the REACH Regulation and the Committee for Socio-economic Analysis (SEAC) has adopted an opinion in accordance with Article 71 of the REACH Regulation on the proposal for restriction of

Creosote and Creosote related substances

EC No.: -

CAS No.: -

This document presents the opinion agreed by SEAC and the Committee's justification for their opinion. The Background Document, as a supportive document to both RAC and SEAC opinions and their justification, gives the details of the Dossier Submitter's proposal amended for further information obtained during the consultation and other relevant information resulting from the opinion making process.

PROCESS FOR ADOPTION OF THE OPINIONS

France has submitted a proposal for a restriction together with the justification and background information documented in an Annex XV dossier. The Annex XV report conforming to the requirements of Annex XV of the REACH Regulation was made publicly available at <https://echa.europa.eu/restrictions-under-consideration> on **21/12/2022**. Interested parties were invited to submit comments and contributions by **22/06/2023**.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

ADOPTION OF THE OPINION

ADOPTION OF THE OPINION OF RAC:

Rapporteur, appointed by RAC: Bert-Ove LUND

Co-rapporteur, appointed by RAC: Raili MOLDOV

The opinion of RAC as to whether the suggested restrictions are appropriate in reducing the risk to human health and/or the environment was adopted in accordance with Article 70 of the REACH Regulation on **[date of adoption of the opinion]**.

[The opinion takes into account the comments of interested parties provided in accordance with Article 69(6) of the REACH Regulation.] [No comments were received from interested parties during the consultation in accordance with Article 69(6)].¹

The opinion of RAC was adopted **by [consensus.] [a simple majority]** of all members having the right to vote. [The minority position(s) including their grounds are made available in a separate document which has been published at the same time as the opinion.]²

ADOPTION OF THE OPINION OF SEAC

Rapporteur, appointed by SEAC: Martien JANSSEN

Co-rapporteur, appointed by SEAC: Luisa CAVALIERI

The draft opinion of SEAC

The draft opinion of SEAC on the proposed restriction and on its related socio-economic impact has been agreed in accordance with Article 71(1) of the REACH Regulation on **8 September 2023**.

The draft opinion takes into account the comments from the interested parties provided in accordance with Article 69(6) of the REACH Regulation.

The draft opinion was published at <https://echa.europa.eu/restrictions-under-consideration> on **08/09/2023**. Interested parties were invited to submit comments on the draft opinion by **07/11/2023**.

The opinion of SEAC

The opinion of SEAC on the proposed restriction and on its related socio-economic impact was adopted in accordance with Article 71(1) and (2) of the REACH Regulation on **[date of adoption of the opinion]**. [The deadline for the opinion of SEAC was in accordance with

¹ Delete the unnecessary part(s)

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Article 71(3) of the REACH Regulation extended by **[number of days]** by the ECHA decision **[number and date]**².

[The opinion takes into account the comments of interested parties provided in accordance with Article[s 69(6) and] 71(1) of the REACH Regulation.] [No comments were received from interested parties during the consultation in accordance with Article[s 69(6) and] 71(1)]².

The opinion of SEAC was adopted **by [consensus.] [a simple majority]**³ of all members having the right to vote. [The minority position[s], including their grounds, are made available in a separate document which has been published at the same time as the opinion.]².

DRAFT

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Contents

1. OPINION OF RAC AND SEAC	9
1.1. THE OPINION OF RAC.....	10
1.2. THE OPINION OF SEAC.....	10
2. SUMMARY OF PROPOSAL AND OPINION.....	13
2.1. Summary of proposal	13
2.2. Summary of opinion	19
2.2.1. RAC opinion summary.....	19
2.2.2. SEAC opinion summary.....	19
3. JUSTIFICATION FOR THE OPINION OF RAC AND SEAC	25
3.1. RISK ASSESSMENT	25
3.1.1. Scope of the risk assessment.....	25
3.1.2. Hazard(s).....	25
3.1.3. Emissions and exposures.....	26
3.1.4. Risk characterisation.....	26
3.1.5. Existing operational conditions and risk management measures already in place	26
3.1.6. Existing regulatory risk management instruments already in place	27
3.2. JUSTIFICATION THAT ACTION IS REQUIRED ON A UNION WIDE BASIS	27
3.3. ANALYSIS OF ALTERNATIVES	30
3.3.1. Availability and technical and economic feasibility of alternatives.....	30
3.3.2. Risk of alternatives	44
3.4. JUSTIFICATION THAT THE SUGGESTED RESTRICTION IS THE MOST APPROPRIATE EU	

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

WIDE MEASURE	45
3.4.1. Regulatory risk management options other than restriction	46
3.4.2. Effectiveness in reducing the identified risk(s).....	48
3.4.3. Socioeconomic analysis	49
3.4.3.1. Assessment of the costs and benefits of different provisions of various restriction options.....	49
3.4.3.2. Costs	50
3.4.3.2.1. Socio-economic impacts on secondary users of creosote-treated sleepers and utility poles	53
3.4.3.2.2. Socio-economic impacts on National Railway Managers (NRIMs)	54
3.4.3.2.3. Socio-economic impacts on private touristic railway managers	56
3.4.3.2.4. Socio-economic impacts on final users of trains (travellers on national and private railway lines).....	58
3.4.3.2.5. Socio-economic impacts on National electricity Distribution System Operators (NDSOs).....	59
3.4.3.2.6. Socio-economic impacts on private electricity Distribution System Operators (PDSOs)	60
3.4.3.2.7. Socio-economic impacts on electricity users	61
3.4.3.2.8. Overall costs – final considerations.....	62
3.4.3.3. Benefits.....	67
3.4.3.3.1. Benefit of restricting reuse by the original user (RO1 only).....	69
3.4.3.3.2. Benefit of restricting the reuse by other professional users that are not the original user (RO1, RO2 and RO4)	71
3.4.3.3.3. Benefit of restricting the secondary use by the original user in the same Member State (RO1, RO2 and RO3)	74
3.4.3.3.4. Benefit of restricting secondary uses of creosote treated wood by other professional users (RO1, RO2, O3, O4).....	75

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

3.4.3.3.5. Benefit of restricting secondary uses of creosote treated wood by the general public (all restriction options).....	76
3.4.3.3.6. Some final considerations on benefits.....	77
3.4.3.4. Other relevant impacts.....	84
3.4.3.5. Proportionality.....	84
3.4.4. Practicality, including enforceability.....	87
3.4.5. Monitorability.....	89
3.4.6. Conclusion whether the suggested restriction is the most appropriate EU-wide measure.....	90
3.5. SUMMARY OF UNCERTAINTIES.....	91
3.5.1. Uncertainties evaluated by RAC.....	91
3.5.2. Uncertainties evaluated by SEAC.....	92
4. REFERENCES.....	96

Tables

Table 1: Restriction proposed by the Dossier Submitter.....	9
Table 2: Restriction proposed by SEAC.....	10
Table 3: Overview of alternatives mentioned in the Annex XV Dossier (mainly based on Table C-1).....	35
Table 4: Potential impacts on travellers on the national or on private railway lines.....	58
Table 5: Potential impacts on electricity users of the national or on private Distribution Network Operators.....	62
Table 6: Cost categories that are associated to the different provisions. Points a. to e. refer to the building blocks described in chapter 3.4.3.1.	63
Table 7: Overview additional costs for original and professional users and the general public of creosote-treated wood.....	64
Table 8: Comparison of benefits of restricting and derogation conditions for different restriction options.....	78

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Table 9: Overview of the human health (HH), environmental (ENV) and man via environment (MvE) benefits for original and professional users of creosote-treated wood 80

Figures

Figure 1: The concept of reuse, secondary use and the second-hand market	14
Figure 2: Summary of RO1	15
Figure 3: Summary of RO2	16
Figure 4: Illustration of RO2 intentions by use scenario	17
Figure 5: Overview of all restriction options considered by SEAC.	50

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

1. OPINION OF RAC AND SEAC

The restriction proposed by the Dossier Submitter is Restriction Option 2: Restriction of all secondary uses of creosote-treated wood with a derogation of reuse for creosote-treated wood authorised under BPR solely for the same use as the original use under similar conditions, by the same user as the original user, and in the same country.

Table 1: Restriction proposed by the Dossier Submitter

Substance Identity (or group identity)	Conditions of the restriction
(a) Creosote CAS No 8001-58-9 EC No 232-287-5	1. Wood treated with such substances shall be placed on the market in the conditions and derogations defined by the Biocidal Product Regulation (EU) No 528/2012.
(b) Creosote oil; wash oil CAS No 61789-28-4 EC No 263-047-8	2. Wood treated with such substances and placed on the market irrespective of the date of impregnation with these substances:
(c) Distillates (coal tar), naphthalene oils; naphthalene oil CAS No 84650-04-4 EC No 283-484-8	a. shall not be distributed, reused or subject to secondary use;
(d) Creosote oil, acenaphthene fraction; wash oil CAS No 90640-84-9 EC No 283-484-8 EC No 292-605-3	b. shall not be placed or made available on the second-hand market.
(e) Distillates (coal tar), upper; heavy anthracene oil CAS No 65996-91-0 EC No 266-026-1	3. By way of derogation from paragraph 2.a, wood treated with such substances can be reused in accordance with paragraph 1 for the same use in the same country, under similar conditions and by the same original user.
(f) Anthracene oil CAS No 90640-80-5 EC No 292-602-7	4. Once considered as waste, treated wood referred to under paragraphs 1 and 3 should be handled according to the Waste Framework Directive 2008/98/EC.
(g) Tar acids, coal, crude; crude phenols CAS No 65996-85-2	5. The restriction shall apply from xx.xx.202x [12 months after its entry into

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

EC No 266-019-3 (h) Creosote, wood CAS No 8021-39-4 EC No 232-419-1 (i) Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline CAS No 122384-78-5 EC No 310-191-5	force].
--	---------

1.1. THE OPINION OF RAC

[See RAC opinion]

1.2. THE OPINION OF SEAC

SEAC has formulated its opinion on the proposed restriction based on an evaluation of the information related to socio-economic impacts documented in the Annex XV report and submitted by interested parties as well as other available information as recorded in the Background Document. SEAC considers that the proposed restriction on **Creosote and Creosote related substances** is the most appropriate Union wide measure to address the identified risks, taking into account the proportionality of its socio-economic benefits to its socio-economic costs provided that the scope or conditions are modified, as proposed by RAC and/or SEAC, as demonstrated in the justification supporting this opinion.

The conditions of the restriction proposed by SEAC are:

Table 2: Restriction proposed by SEAC

Substance Identity (or group identity)	Conditions of the restriction
(a) Creosote CAS No 8001-58-9 EC No 232-287-5 (b) Creosote oil; wash oil CAS No 61789-28-4 EC No 263-047-8	1. Wood treated with such substances shall be placed on the market under the conditions and according to the derogations defined by the Biocidal Product Regulation (EU) No 528/2012. 2. Irrespective of the date of treatment with

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

<p>(c) Distillates (coal tar), naphthalene oils; naphthalene oil CAS No 84650-04-4 EC No 283-484-8</p> <p>(d) Creosote oil, acenaphthene fraction; wash oil CAS No 90640-84-9 EC No 283-484-8 EC No 292-605-3</p> <p>(e) Distillates (coal tar), upper; heavy anthracene oil CAS No 65996-91-0 EC No 266-026-1</p> <p>(f) Anthracene oil CAS No 90640-80-5 EC No 292-602-7</p> <p>(g) Tar acids, coal, crude; crude phenols CAS No 65996-85-2 EC No 266-019-3</p> <p>(h) Creosote, wood CAS No 8021-39-4 EC No 232-419-1</p> <p>(i) Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline CAS No 122384-78-5 EC No 310-191-5</p>	<p>these substances, wood treated with such substances and placed on the market:</p> <p>a. shall not be further distributed, reused or subject to secondary use;</p> <p>b. shall not be placed or made available on the second-hand market.</p> <p>3. By way of derogation from paragraph 2.a and 2.b, wood treated with such substances can be placed on the second-hand market or reused if it is for the same professional use permitted under the Biocidal Products Regulation and in the same Member State. When placing on the second-hand market or reusing wood treated with such substances, suppliers and professional users shall apply the same risk management measures as identified in accordance with the Biocidal Products Regulation (EU) No 528/2012. The users shall maintain documentation of the purchase and sales and/or disposal of the creosote treated material.</p> <p>4. Once it becomes waste, treated wood referred to under paragraphs 1 and 3 should be handled as hazardous waste according to the Waste Framework Directive 2008/98/EC.</p> <p>5. The restriction shall apply from xx.xx.202x [12 months after its entry into force].</p>
--	--

Notes to Table 2:

Note 1. Reuse is second-hand use for the same purpose as the original use. Reuse is defined in the Waste Framework Directive 2008/98/EC: 13. 're-use' means any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Note 2. Secondary use is second-hand use for other purposes than the original use.

Note 3. Paragraph 3 means that reuse of, for instance, creosote-treated agricultural poles is not allowed anymore as the use of newly creosote-treated wood for this application is currently prohibited. Likewise, any future changes in the scope of the BPR approval should apply in the context of this restriction.

Note 4. In contrast to current entry 31 of REACH Annex XVII, the new restriction proposal targets all wood treated with the substances in column 1. The current entry 31 makes a distinction between wood treated before 31/12/2002 and after 31/12/2002.

Justification for changes proposed by SEAC:

1. A few editorial changes are incorporated.
2. The main difference to the Dossier Submitter's proposal is that not only original users, but also other professional users would be allowed to reuse treated articles under certain conditions. Furthermore, SEAC places additional emphasis on some of the requirements for reuse which were already implied by the Dossier Submitter but are made more explicit by SEAC. The more specific conditions for reuse by professional users include the following:
 - a. Only in the same Member State where the original use took place,
 - b. Only under similar conditions for placing on the market of treated articles as defined in the context of the BPR,
 - c. Only under similar risk management measures (also called risk mitigation measures) as defined in the context of the BPR,
 - d. Only as long as the first placing on the market and use is allowed in the context of the BPR.

In reference to a.: SEAC agrees with the Dossier Submitter that trade across internal EU borders should be prohibited as relevant BPR provisions allow Member States to make individual decisions on the use of creosote, which should not be weakened by the restriction. Furthermore, trade across borders is considered to increase the potential for occurrence of restricted secondary uses (incl. by the general public).

In reference to b. & d.: At the time of opinion adoption, Commission Implementing Regulation (EU) 2022/1950 specifies conditions for the placing on the market of treated articles, which this restriction aims to make applicable also for any potential subsequent placing on the market in the context of reuse. However, if this regulation is eventually replaced by another regulation or if approval is withdrawn, the most recent BPR provisions shall apply, meaning there should be a dynamic link between this restriction and relevant provisions from the context of the BPR.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

In reference to c. & d.: SEAC is of the opinion that other professional users of the allowed uses should maintain a comparable level of safety as the original users. Due to lack of protection, access by the general public to creosote-treated articles is meant to be completely eliminated. For any allowed reuses by professional users, SEAC considers it important that the handling of creosote-treated articles is subject to risk management measures (also referred to as risk mitigation measures) as identified in the approval of the substances as biocidal products in accordance with the Biocidal Products Regulation (EU) No 528/2012 at the time at which the reuse takes place. Again, the most recent provisions shall apply, meaning there should be a dynamic link between this restriction and relevant provisions from the context of the BPR.

SEAC supports the reuse of creosote-treated wood by other professional users only if the placing on the market and purchase can be sufficiently controlled and limited to verified professional users. The general public shall not have access to the treated articles and enforceability of this requirement is important. Otherwise, paragraph 3 should be replaced by the text proposed by the Dossier Submitter.

2. SUMMARY OF PROPOSAL AND OPINION

2.1. Summary of proposal

The restriction proposal aims at reducing health risks (especially for the general public) and environmental risks associated with the reuse and secondary use of wood treated with creosote and creosote-related substances² by amending entry 31 of Annex XVII to the REACH Regulation. As defined by the Dossier Submitter, 'reuse' means use for the same purpose as the original use, whereas 'secondary use' means use for other purposes than the original use.

² To enhance readability of the opinion, the expression "wood treated with creosote and creosote-related substances" may be shortened to "creosote-treated wood" or "creosote-treated articles", but the meaning remain the same.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Figure 1: The concept of reuse, secondary use and the second-hand market

Definitions	REUSE (for the purpose for which wood was originally treated and used)	SECONDARY USE (for a different purpose than the one for which wood was originally treated and used)
SAME ENTITY (as original user)	<i>Example: Railway sleeper reused as railway sleeper by same professional user</i>	<i>Example: Railway sleeper used for embankment of railway tracks by same professional user</i>
DIFFERENT ENTITY (than original user)	<i>Example: Railway sleeper reused as railway sleeper by different professional user (i.e. a different railway company or different country office)</i>	<i>Example: Railway sleeper used as fencing material by different user (incl. general public)</i> <i>Example: Reuse of fencing material (original railway sleeper) as fencing material</i>

= involves/involved a transaction on the **second-hand market**

The Dossier Submitter finds evidence of creosote-treated wood being sold or otherwise made available to different entities (incl. the general public) in many EU countries. By restricting the trade of treated wood on the second-hand market, the restriction proposal is considered to provide better control of the distribution of treated articles throughout the EU. This is especially relevant for individuals that may be unaware of and/or unprotected from the exposure to the carcinogenic substances applied in wood treatment. Furthermore, adequate disposal of treated articles that are not considered reusable anymore is expected to become considerably more likely (also due to simplified enforcement of the regulation).

The proposed restriction is meant to replace entry 31 of Annex XVII to the REACH Regulation in order to clarify the regulation of creosote and related substances under REACH and bring it into alignment with the renewed approval of creosote as an active substance under the Biocidal Product Regulation (BPR). The proposed restriction is further intended to be aligned with the provisions of the Waste Framework Directive (WFD).

The renewal of the approval under the BPR applies from 30 April 2023 and specifies that creosote-based biocidal products may only be authorised for placement on the market and use for the context of vacuum pressure impregnation of railway sleepers and utility poles for electricity and telecommunications. Moreover, these biocidal products can only be authorised when not doing so would have a disproportionately negative impact on society compared with the risk of using the substance. Additionally, it is specified that newly treated railway sleepers and utility poles can only be placed on the market in those EU Member States (MS) that have

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

indicated their agreement to ECHA. ECHA maintains and publishes a list of these MS³. While the first placement on the market is covered, the BPR does not address any subsequent placing on the market and use of the treated wood after the first placing on the market in a MS. The proposed restriction intends to complement the regulation under the BPR by limiting reuse by professional users and banning secondary use of creosote-treated articles. As there is no overlap between the BPR and the proposed restriction, it does not create double regulation.

The WFD (2008/98/EC) covers yet another stage of the life cycle of treated wood, namely the end-of-life disposal stage. It specifies that, at the end of its life cycle, wood treated with creosote or creosote-related substances is considered hazardous waste and must be disposed of accordingly. As in the case of the BPR, there is no overlap between the proposed restriction and the WFD, and thus there is no double regulation.

The Dossier Submitter considered two Restriction Options (ROs); the first one bans all reuses and secondary uses of treated wood, whereas the second one exempts the reuse of treated wood by the same professional user as the original user.

Figure 2: Summary of RO1

Uses allowed in RO1	REUSE (for the purpose for which wood was originally treated and used)	SECONDARY USE (for a different purpose than the one for which wood was originally treated and used)
SAME ENTITY (as original user)	<i>Example: Railway sleeper reused as railway sleeper by same professional user</i>	<i>Example: Railway sleeper used for embankment of railway tracks by same professional user</i>
DIFFERENT ENTITY (than original user)	<i>Example: Railway sleeper reused as railway sleeper by different professional user (i.e. a different railway company or different country office)</i>	<i>Example: Railway sleeper used as fencing material by different user (incl. general public) Example: Reuse of fencing material (original railway sleeper) as fencing material</i>

 = involves/involved a transaction on the **second-hand market**

³ Lists of Member States where wood treated with creosote may be placed on the market for certain uses in accordance with Commission Implementing Regulation (EU) 2022/1950, <https://echa.europa.eu/documents/10162/532a81d2-522f-cb82-3cb7-1055beff2073>. Four Member States have currently not registered for sleepers: Cyprus, Greece, Malta and The Netherlands, and 14 Member States have not registered for utility poles: Belgium, Croatia, Germany, Denmark, France, Latvia, Lithuania, Luxemburg, Malta, The Netherlands, Portugal, Romania, Slovakia and Slovenia.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Figure 3: Summary of RO2

Uses allowed in RO2	REUSE (for the purpose for which wood was originally treated and used)	SECONDARY USE (for a different purpose than the one for which wood was originally treated and used)
SAME ENTITY (as original user)	<i>Example: Railway sleeper reused as railway sleeper by same professional user</i>	<i>Example: Railway sleeper used for embankment of railway tracks by same professional user</i> ✗
DIFFERENT ENTITY (than original user)	<i>Example: Railway sleeper reused as railway sleeper by different professional user (i.e. a different railway company or different country office)</i> ✗	<i>Example: Railway sleeper used as fencing material by different user (incl. general public)</i> ✗ <i>Example: Reuse of fencing material (original railway sleeper) as fencing material</i>

= involves/involved a transaction on the **second-hand market**

The Dossier Submitter chose the second restriction option (RO2) and further clarified its objectives:

- **Reuse** of creosote-treated wood is proposed to be allowed solely for the same entity as the original professional user, under similar conditions, in the same country and for the same use as the original use. For example, railway sleepers can be reused as railway sleepers and utility poles can be reused as utility poles if the condition of the wood allows⁴. Uses of creosote no longer allowed under the BPR should not be considered covered by the derogation described in paragraph 3 of the proposed restriction. For example, after entry into force of the proposed restriction, subjecting creosote-treated wood originally used as agricultural fencing material to reuse for the same original purpose and by the same original user cannot be understood as being allowed under the proposed derogation. During opinion development, the Dossier Submitter further clarified that, under RO2, the reuse is meant to be allowed only in those countries that agree with the first placing on the market of creosote-treated wood for the relevant use in line with the new BPR provisions (see previous footnote). This means that, after entry into force of the proposed restriction, a railway sleeper cannot be reused by the same original user, in the same country and under similar conditions for the same original use if the relevant country did not sign on to the list of Member States that continue to allow the first placing on the market of creosote-

⁴ In practice, the reuse of utility poles is considered less likely due to the bad condition of the wood after first use and extraction.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

treated sleepers in line with the prevailing BPR provisions.

- After entry into force of the restriction, subjecting any kind of creosote-treated wood to **secondary use** is foreseen to be banned. This includes wood that has been treated with creosote before December 2002, which was exempted under the previous restriction entry.
- Since the reuse by a different entity than the original user and the secondary use (by any entity) is proposed to be banned, there shall not be a **second-hand market** for creosote-treated wood.
- The proposed restriction does not affect the continuation of uses of creosote-treated wood as long as the wood is not subjected to reuse or secondary use by its current user. For example, creosote-treated wood that is still in its original use as agricultural fencing material by its original user at the time of entry into force of the restriction is not addressed by the proposal at hand.

Figure 4: Illustration of RO2 intentions by use scenario

Original use of treated article	Before entry into force, the article...				Entry into force of the proposed restriction	After entry into force, the article...				
	has been subjected to reuse...		has been subjected to secondary use (e.g. landscaping material)...			can be continued to be used (i.e. not subjected to reuse or secondary use)...	can be subjected to reuse...		can be subjected to secondary use...	
	by the original user?	by a new user?	by the original user?	by a new user?		by the current user?	by the current user?	by a new user?	by the current user?	by a new user?
Railway sleeper (or utility pole*)	no	no	no	no	Entry into force of the proposed restriction	yes	yes***	no	no	no
	yes	no	no	no		yes	yes***	no	no	no
	no	yes	no	no		yes	no	no	no	no
	no	no	yes	no		yes	no	no	no	no
	no	no	no	yes		yes	no	no	no	no
Other uses (e.g. agricultural fence**)	no	no	no	no		yes	no	no	no	no
	yes	no	no	no		yes	no	no	no	no
	no	yes	no	no		yes	no	no	no	no
	no	no	yes	no		yes	no	no	no	no
	no	no	no	yes		yes	no	no	no	no

* The Dossier Submitter's analysis finds that utility poles are rarely subjected to reuse or secondary use due to the low quality of the wood after extraction for the original use.

** Other uses here cover all kinds of uses that are not allowed anymore according to the new BPR provisions, for example, this includes the use of creosote-treated wood for agricultural fencing.

*** The Dossier makes clear that reuse is only allowed by the original user, in the same country, under similar conditions, and for the same use as the original use. During opinion development, the Dossier Submitter further clarified that, under RO2, the reuse is meant to be allowed only in those countries that agree with the first placing

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

on the market of creosote-treated wood for the relevant use in line with the new BPR provisions.

Creosote contains a mixture of polycyclic aromatic hydrocarbons (PAHs) and fulfils the criteria both for PBT and/or vPvB substance and for being carcinogenic (1B). Both properties are regarded as non-threshold properties. The Dossier Submitter was not able to quantify the environmental and human health benefits of the proposed measures based on the analysis of the risk reduction potential of the proposed restriction. However, the Dossier Submitter emphasised the need to minimise especially the exposure of the general public (e.g., consumers) to creosote and creosote-related substances.

The analysis of alternatives and the assessment of restriction costs are focused on the reuse of creosote-treated railway sleepers because the condition of creosote-treated utility poles is reported to be too poor in most cases to allow further reuse after their first use and extraction. Thus, there should not be an impact of restricting reuse of creosote-treated utility poles and the need to find alternatives specifically for the reuse of utility poles may be of lower importance to the analysis. Moreover, the ban of all secondary uses of creosote-treated articles is already considered justifiable as per the BPR-related assessment which resulted in the withdrawal of the legal basis for the first placing on the market of creosote for other uses than railway sleepers and utility poles.

Following the renewal of the approval of creosote as an active biocidal substance under the BPR, the Dossier Submitter generally considers newly creosote-treated wood to be a likely used alternative for the reuse of creosote-treated railway sleepers⁵. This is based on the availability, durability and cost of alternatives at the time of Dossier development and considers whether wood is still the best option from technical and economic point of view. Chemical alternatives to creosote impregnation (e.g. water- or oil-based copper hydroxide products) are generally considered less attractive due to limited commercial availability, lower wood protection potential, higher prices, or other effects such as ignitability, conductivity or similar risk profile. Yet, the Dossier Submitter considers that chemical alternatives show potential to become preferred alternatives as research and development efforts continue and economies of scale (resulting from increased adoption) may lower their price. Other materials than wood are generally considered available and partly already implemented to substitute the use of creosote-treated wood (e.g. concrete and composite plastic sleepers). However, non-chemical alternatives are not yet considered technically and economically feasible for all users and/or all use cases (e.g. specific tunnels, bridges, tight curves, switching points, low traffic lines or areas of temperature and humidity fluctuations). Given the growing potential of chemical and non-chemical alternatives and the fall-back option of freshly creosote-treated sleepers where other alternatives are not yet ready, the Dossier Submitter concludes that alternatives to the reuse of sleepers exist in all cases.

The quantifiable costs of the restriction estimated by the Dossier Submitter range from

⁵ Only applicable for railway companies in countries that still allow the first placing on the market of creosote for treatment of sleepers under the new BPR provisions. As mentioned earlier, creosote-containing biocidal products may be authorised by EU Member States for impregnation of railway sleepers and utility poles where no suitable alternatives are available in the national context.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

approximately €150,000/year to €9 million/year, depending on the reuse volume and the alternative chosen by the user.

2.2. Summary of opinion

2.2.1. RAC opinion summary

[See RAC opinion]

2.2.2. SEAC opinion summary

- SEAC considers that the **scope of the proposal is sufficiently clear**. The Dossier Submitter provided sufficient information about the use of creosote and related substances in wood treatment and also made clear why the analysis of alternatives and costs deriving from the restriction has been focused on the reuse and secondary use of railway sleepers. The reuse and secondary use of creosote-treated wooden utility poles is considered less likely due to the poor condition of the material after extraction, however, its occurrence cannot be excluded. Furthermore, the absence of regulatory overlaps with the BPR and WFD is clear, as these legislations cover the lifecycle stages of the first placing on the market and the disposal, respectively, whereas the restriction covers subsequent placing on the market and the use in between these two above-mentioned stages.
- SEAC notes that the **aim of the Dossier Submitter's restriction proposal is clear: restricting second-hand uses** by different entities than the original user, which can concern both reuse and secondary use of creosote-treated wood. By banning any kind of trade of the treated articles on a second-hand market, the Dossier Submitter's proposal provides a basis for firm control of further distribution of the carcinogenic substances throughout the EU and for the enforcement of the responsibility to adequately handle and dispose of the treated articles after use. Particular emphasis is put on the protection of the general public, for which the ban of secondary uses (e.g., in gardens) is most relevant. The general public is most likely untrained to handle the treated articles and may be even unaware of the potential exposure to carcinogenic substances applied to the wood before the second-hand acquisition. Additionally, the Dossier Submitter's proposal aims at regulating how existing creosote-treated wood can be reused in alignment with the new provisions of the BPR (i.e., only for the same purpose, by the same original professional entity, in the same country and under similar conditions as provided in the context of the BPR). Without concluding on the proportionality, SEAC agrees with the Dossier Submitter that, through the proposed restriction:
 - protection of the general public will be improved significantly;
 - only professional users will be allowed to handle the treated articles under similar conditions as defined in the BPR provisions;

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- distribution of treated wood will be better controlled because of limiting of the placing on the market;
 - proper disposal will become more likely;
 - consistency of enforcement may be facilitated considerably.
- SEAC further agrees that the **replacement of the previous restriction entry** by the new proposed restriction **is justified** based on the lack of clarity of the current entry 31 of REACH Annex XVII and the need to resolve the current misalignment of the existing restriction with the new BPR provisions (Commission Implementing Regulation 2022/1950 of 14 October 2022)⁶. Also, potential future changes in the BPR-related context are, by design, aligned with the new proposed restriction. The replacement thus provides a significant improvement of the regulation of reuse and secondary use of creosote-treated articles under REACH through simplification and clarification. In contrast to the current entry 31 of REACH Annex XVII, no distinction is made in the new restriction proposal between wood treated before and after 31/12/2002 and reuse will be confined to clearly defined applications as long as such applications are allowed under the BPR. SEAC notes the increased level of alignment with the new and future provisions under the BPR as applications of creosote wood that are no longer allowed under the BPR (e.g. fences or agricultural stakes) are no longer allowed under REACH either. Treated wood resulting from these applications formally becomes waste as reuse or secondary use will no longer take place under the current restriction proposal.
 - SEAC agrees with the Dossier Submitter that **Union-wide action is justified**. In this context, it should be noted that both of these previously existing regulatory measures (i.e. the relevant BPR provisions and the previous restriction entry) represent EU-wide measures. SEAC considers that the solution to the lack of clarity and alignment of the existing restriction should likewise be implemented at EU level. According to the BPR provisions, the first placing on the market of creosote and creosote-related substances is only allowed in the EU Member States that indicate their agreement with the use, which in turn depends on whether or not technically and economically feasible alternatives are available in a Member State. When comparing the merits of national and Union-wide regulation, it can be expected that a Union-wide measure addressing the subsequent reuse and secondary use of treated wood will create better harmonisation of regulation in the group of Member States that authorised the use of the substances on their territory. However, going beyond this group of Member States, an EU-wide measure is also expected to considerably reduce the uncontrolled distribution of creosote-treated wood throughout the rest of the Union (and thus related uncontrolled exposure of humans and the environment), and in particular to those Member States that have not authorised the first placement on the market due to the availability of suitable alternatives.

⁶ [EUR-Lex - 32022R1950 - EN - EUR-Lex \(europa.eu\)](#)

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- SEAC concurs with the Dossier Submitter that a **restriction is generally the most appropriate EU-wide measure**. One reason is that wood treated with creosote or creosote-related substances is currently already intended to be regulated by the existing restriction entry 31 of Annex XVII of REACH. As explained before, this entry lacks clarity and alignment with the renewed BPR approval and is thus intended to be replaced with a new, improved version. SEAC expects that the new proposal will avoid a vast amount of the current interpretation differences of entry 31 among the Member States. For example, a number of secondary uses are currently already intended to be prohibited by entry 31, for instance, indoor uses, as well as uses in parks, gardens and other recreational and leisure facilities (see paragraph 3 of entry 31). Yet, the lack of clarity in the existing restriction leads to different interpretations of the ban across different Member States. SEAC further notes the implementation of a national restriction on creosote-treated wood in France and the requirement to the Member State under the safeguard clause in article 129 of REACH to prepare an Annex XV restriction dossier. In addition to a restriction, the Dossier Submitter analysed the authorisation requirement under REACH (Annex XIV) and the labelling of creosote-treated articles as alternative Risk Management Options (RMOs). SEAC notes that both of these approaches were dismissed by the Dossier Submitter as not being applicable or effective enough compared to the proposed restriction. SEAC agrees with the Dossier Submitter's conclusions on the adequacy of these other RMOs. Furthermore, the existing frameworks of the BPR and the WFD are discussed as RMOs by the Dossier Submitter, but as mentioned before, these are not found suitable to regulate the identified risks because they cover other lifecycle stages of the treated wood (i.e., first placing on the market and waste, respectively).
- SEAC notes RAC's conclusion that the proposed restriction will lead to a reduction in the exposure of humans due to the ban of secondary uses and the limitation of reuse of creosote-treated wood. Thereby, especially the **risk** to the general population is reduced.
- The Annex XV dossier provides an **analysis of alternatives** for the reuse and secondary use of creosote-treated wood, which is partly based on the BPR assessment of alternatives. This analysis of alternatives mainly focuses on the use of creosote-treated wood as railway sleepers because the reuse and secondary use of utility poles is reported to be limited due to low quality of the wood after extraction. Some attention is also given to other applications (e.g. fences, posts, stakes and agricultural poles), but it is considered that the BPR largely already identified suitable alternatives for such uses, which had led to the limitation of allowed uses to railway sleepers and utility poles at the stage of the BPR renewal. SEAC notes the outcome of the BPR assessment of alternatives for the first placing on the market of creosote-treated wood and relies on the quality of this assessment. SEAC agrees with the Dossier Submitter that this indicates the availability of suitable alternatives for secondary uses of railway sleepers and utility poles. The available assessments carried out in the context of the BPR and by the Dossier Submitter also provide some insight on whether alternatives are available for reuses of railway sleepers and utility poles. SEAC further agrees with the Dossier Submitter's assessment that alternatives are available for reuses of railway sleepers and utility poles. Comments received in the consultation on the Annex XV report further seem to confirm that especially non-chemical alternatives are used more

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

and more widely. However, it is important to note that the most likely alternative for the reuse of creosote-treated wood is still considered to be the fresh treatment of railway sleepers and utility poles with creosote (as long as it is still allowed under the BPR), which does not represent a safer and less hazardous alternative.

- Due to the unclear scope of the existing restriction entry 31, SEAC finds that it is not always easy to identify which **impacts** are specifically caused by the new restriction proposal. Furthermore, data limitations encountered by the Dossier Submitter complicate the quantification of the identified impacts of the proposed restriction in comparison to the baseline of the current entry 31. This means that many impacts can only be described on a qualitative level.
- As part of its analysis of the costs and benefits, **SEAC analysed separately the different components of the Dossier Submitter's proposal**. This means that, for clarity in presenting the analysis, in addition to the two restriction options proposed by the Dossier Submitter (RO1 and RO2), three additional notional restriction options (RO3, RO4, and RO5) with different combinations of these components, are presented. This is to make sure that the assessment is as complete as possible. All options ban the secondary use by the general public as this is the main aim of the proposed restriction. The options differ only with respect to what is allowed for the original user and/or other professional users in terms of reuse and secondary use of creosote-treated sleepers and utility poles. The options have been described in chapter 3.4.3.1 of this opinion and have been depicted in Figure 5.
- SEAC notes that **costs** for various actors will depend on the provisions of the restriction option implemented. Costs mainly depend on whether the alternatives will become less expensive (and safer) in the future and on the possibility of reuse. Least costs are associated with restriction options 3, 4 and 5 (RO3, RO4 and RO5) as it allows transfer of second-hand sleepers and poles from the original user to other users and private railway infrastructure managers and private distribution system operators would not incur any additional cost as reuse is still possible. Secondary use is still allowed under RO4 and RO5.
- SEAC analysed the **benefits** of the different elements of the two restriction options proposed by the Dossier Submitter, which can be combined to make up three additional options. The analysis indicates that most significant benefits can be achieved by preventing the use by the general public. This is applied in all five ROs. Banning the secondary use, as applied in two options proposed by the Dossier submitter (RO1 and RO2) and the ones proposed by SEAC (RO3, RO4 and RO5), further generates benefits. Therefore, SEAC considers the two options that still allow secondary use (RO4 and RO5) less favourable in terms of benefits. Of the three remaining options, RO1 prohibits all reuses and RO2 only allows reuse by the original user. For these ROs, benefits can be considered limited or even negative in case newly creosoted wood is the preferred alternative, which is currently likely to be the case in a considerable amount of Member States. According to SEAC's evaluation, RO3, which allows reuse by the original and other professional users, leads to higher environmental benefits compared to RO2 if reuse is substituted by newly creosoted wood products, which SEAC considers the most likely scenario.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- SEAC notes that only a qualitative assessment of the costs and benefits was carried out by the Dossier Submitter, hence it is not possible to quantify the **proportionality**. SEAC considers that all assessed restriction options are proportionate because every RO bans the use of creosote-treated articles by members of the general public, who are likely unaware of the risks and face a high risk of uncontrolled exposure to creosote and related substances. The benefits of avoiding these health impacts are considered to be substantial. Compared to the most substantial benefit of protecting the general public, the costs of the assessed restriction options are found to be relatively small. Therefore, it is very likely that each RO results in a positive net-benefit. In addition to the finding that all ROs are very likely to be proportionate, SEAC's assessment looks at the comparison of net-benefits of the different ROs to find the most proportionate one. SEAC has considered the two restriction options proposed by the Dossier Submitter (RO1 and RO2) as well as the other three options (RO3, RO4 and RO5). Options RO4 and RO5 were not considered preferable for several reasons. These options allow secondary uses that are currently prohibited under the BPR, which suggests that sufficient alternatives are available. Furthermore, the exposure through secondary uses, that may also become available to the general public, would contradict the aim to minimise emissions of and exposure to CMR and PBT/vPvB substances as much as possible. Based on the qualitative assessment of the costs and benefits, SEAC considers RO3 the preferred restriction option in terms of proportionality, shortly followed by RO2. Costs of RO1 would be considerably higher and benefits would be limited. SEAC notes however that the advantages of RO3 may be nullified in case the placing on the market of second-hand railway sleepers and/or utility poles for reuse by other professional users leads to the general public purchasing these articles. Therefore, SEAC supports restriction option RO3 only if there is a possibility to control the market and prevent access by the general public. If this would not be possible, SEAC concludes that RO2 would become the preferred restriction option in terms of proportionality. SEAC will ask a specific question on the possibilities to control the market for the general public in the consultation
- SEAC considers the Dossier Submitter's proposal to be **practical and enforceable** based on the clear ban of the second-hand market for wood treated with creosote and related substances. This applies both to RO1 and RO2. By ensuring that the original professional user will be responsible for the treated article over its entire life cycle (ending with the adequate disposal), enforceability becomes simplified, and practicality increases. However, SEAC assumes that RO3 will also be practical and enforceable if proper documentation on purchase, sales and/or disposal will be available.
- SEAC agrees with RAC's conclusion that the reduction of risk through proposed restriction is **monitorable** over time. Based on similar reasoning as used in the assessment of practicality and enforceability, SEAC considers it possible for enforcement authorities to monitor the implementation of the selected restriction option for creosote-treated wood articles (RO2 and RO3) by the means of documentation. Given that SEAC's evaluation found RO3 to be most proportionate SEAC concurs with RAC that a permanent labelling system would allow a better follow up of the treated articles all along their service life. SEAC further expects that the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

current obligation under the Biocidal Product Regulation (EU) No 528/2012 to label treated article upon placing on the market would facilitate monitoring in future.

- SEAC observed **uncertainties** about the volumes of reuse, the current and future substitution by alternatives, as well as on costs, benefits and proportionality. Although a sensitivity analysis is not possible for the variables that contribute to the uncertainties, SEAC considers them not to have major impacts on the SEAC conclusions on the effectiveness, practicality and monitorability of all the restriction options assessed by SEAC. SEAC also considers that these uncertainties are not expected to prevent the decision-makers from concluding on which is the most appropriate EU wide measure.

DRAFT

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

3. JUSTIFICATION FOR THE OPINION OF RAC AND SEAC

3.1. RISK ASSESSMENT

3.1.1. Scope of the risk assessment

Summary of Dossier Submitter's assessment:

The Dossier Submitter considered the same substances as are in the scope of the current Entry 31 of REACH Annex XVII to be in the scope of the restriction proposal. The restriction proposal aims at reducing the health (especially for the general public) and environmental risks associated with the reuse and secondary uses of wood treated with creosote and creosote-related substances by amending entry 31 of Annex XVII. Additionally, second-hand market of creosote-treated wood is considered to be of special concern, because used wood treated with creosote and creosote related substances can be sold in many EU Member States.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.1.2. Hazard(s)

Summary of Dossier Submitter's assessment:

The Dossier Submitter provided a description of the hazards related to creosote and creosote-related substances and justified the restriction based on the non-threshold effects of these substances (carcinogenicity, PBT, vPvB), which would then require minimisation of emissions and exposures. Creosote, wood (CAS 8021-39-4), is the only exception, because it contains mainly phenolic compounds (phenol, guaiacol and cresol).

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

3.1.3. Emissions and exposures

Summary of Dossier Submitter's assessment:

The Dossier Submitter provided an estimate of the reuse volumes of railway sleepers treated with creosote in the EEA. It was not possible for the Dossier Submitter to quantify the emissions from creosote-treated wood (during reuse and secondary use) of PAHs with PBT and/or vPvB and carcinogenic properties. However, releases and exposure were considered likely during the entire service life of the creosote-treated wood. Therefore, the Dossier Submitter concluded that emissions from the uses in the scope are not minimised and that especially exposure of the general public to non-threshold carcinogens would need to be minimised, because creosote-treated wood is available on the market in many EU Member States.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.1.4. Risk characterisation

Summary of Dossier Submitter's assessment:

The Dossier Submitter could not quantify the environmental and human health risks resulting from the reuse and secondary uses of creosote-treated wood but concluded that such risks should be minimised. Therefore, a qualitative risk characterisation was performed based on the non-threshold properties of the targeted substances.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.1.5. Existing operational conditions and risk management measures already in place

Summary of Dossier Submitter's assessment:

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

No sufficient and/or effective operational conditions (OCs) and risk management measures (RMMs) were identified by the Dossier Submitter to control the identified risks, especially for the general public.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.1.6. Existing regulatory risk management instruments already in place

Summary of Dossier Submitter's assessment:

The Dossier Submitter clarified in the Annex XV report why the existing regulatory management measures in the EU are not sufficient to control the identified risks. This took into account the lack of clarity of current entry 31 of REACH Annex XVII, which appears to be interpreted in different ways in different Member States. Action is also needed to avoid misalignments of entry 31 of Annex XVII with the new BPR provisions (Commission Implementing Regulation 2022/1950 of 14 October 2022). In addition, the BPR covers the first placing on the market only and not the subsequent supplies.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.2. JUSTIFICATION THAT ACTION IS REQUIRED ON A UNION WIDE BASIS

Summary of Dossier Submitter's assessment:

The Dossier Submitter concluded that action is required to ensure a high level of protection at the EU level, addressing the risks associated with the reuse and secondary use of wood treated with creosote or creosote-related substances, especially when it comes to exposure of the general public (e.g., consumers of goods traded on the second-hand market).

The restriction proposal made by the Dossier Submitter is intended to amend entry 31 of Annex XVII of REACH, to clarify it and eliminate misalignment with the new provisions of the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

BPR. The Dossier Submitter finds that not all EU Member States interpret in a uniform manner the derogation of wood treated with creosote and placed on the market before 2002, which currently exist in entry 31 of Annex XVII. This is considered to result in inconsistencies of regulatory measures across the EU.

With regard to inner-EU trade, the Dossier Submitter considers there is uncontrolled circulation of creosote-treated wood within the EEA and evidence has been found for the existence of informal sales networks for creosote-treated wood in several EU member states. A Union-wide measure is expected to eliminate the trade of creosote-treated wood across borders while also avoiding trade and competition distortions within the EU. In contrast to individual action subject to national decisions, EU-wide regulation is considered to result in a level playing field on the internal market.

Based on these findings, it is considered that an EU-wide measure is needed and justified.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

SEAC conclusion(s):

SEAC agrees that action is required on a Union-wide level. SEAC concludes that any necessary action addressing the risks associated with the reuse and secondary use of wood treated with creosote and creosote-related substances should be implemented in all Member States.

Key elements underpinning the SEAC conclusion(s):

SEAC notes that:

- REACH Annex XVII, entry 31, already aims to regulate the substance on a Union-wide basis. However, the lack of clarity of the current entry 31 of Annex XVII results in different interpretations of the legislation among the Member States.
- Furthermore, the current entry 31 is not aligned with the new BPR provisions (2022). This is because entry 31 still allows the use of second-hand creosote-treated wood for applications that are not allowed anymore under the BPR (e.g., fencing for agricultural purposes and the application in harbours and waterways). According to the new BPR provisions, starting from 30 April 2023 the only kind of creosote-treated wood allowed to be (first) placed on the market is wood used for railway sleepers and utility poles for electricity or telecommunications. This first placing on the market of creosote and creosote-related substances is only allowed in the EU Member States that indicate their agreement with the use, which in turn is dependent on whether or not technically and economically feasible alternatives are available in a Member State. Furthermore,

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Member states may in future drop out from the list of countries allowing the BPR-related first placing on the market of creosote-treated articles for railway sleepers and/or utility poles. Likewise, there may be future changes in the uses approved under the BPR. This is why future alignment of BPR-related provisions with the restriction under REACH needs to be ensured. The proposed restriction by the Dossier Submitter establishes the required dynamic link.

- Both reuse and secondary use of creosote-treated wood take place in the EU, and, in various Member States, there is widespread uncontrolled online sale of second-hand creosote-treated wood, especially railway sleepers.
- The Dossier Submitter aims to reduce the risks associated with the reuse and secondary use of creosote-treated wood by amending entry 31. Special emphasis is put on the minimisation of risk for the general public, which, due to the unclarity of entry 31, still seems to have access to creosote-treated wood traded on the second-hand market for treated wood.

Considering the evidence provided, SEAC agrees with the Dossier Submitter that treated articles currently circulate within the EU and end up for purposes not allowed, due to the lack of sufficient control over the second-hand market in the baseline. Based on the available information, SEAC thus considers that the second-hand market of wood treated with creosote and creosote-related substances is currently not adequately regulated by entry 31 of Annex XVII. SEAC concurs with the conclusion of the Dossier Submitter that uncontrolled distribution of treated wood throughout the Union will be limited considerably by the new proposed restriction ensuring a harmonised and high level of protection across the Union. SEAC also agrees that, given the change in the BPR provisions, the new restriction proposal should aim to allow, under specific conditions, the reuse of creosote-treated wood only for the purposes allowed under the BPR at the time at which reuse occurs.

SEAC considers that Union-wide action is justified based on the lack of clarity of the current entry 31 of REACH Annex XVII and the need to resolve the current misalignment of the existing restriction with the new BPR provisions (Commission Implementing Regulation 2022/1950 of 14 October 2022). In fact, it can be noted that both of these existing regulatory EU-wide measures form the current regulatory baseline. SEAC considers that a solution to the unclarity and misalignment of the existing restriction should likewise be implemented at EU level.

When comparing the merits of national and Union-wide regulation, it can be expected that a Union-wide measure addressing the subsequent reuse and secondary use of treated wood will create better harmonisation of regulation in the group of Member States that allows the use of the substances. However, going beyond this benefit, an EU-wide measure is also expected to considerably reduce the uncontrolled distribution of creosote-treated wood throughout the rest of the Union (and thus related uncontrolled exposure of humans and the environment). This is because an EU-wide restriction can address the need to limit the trade from a country that authorises the first use in the context of the BPR to those Member States that do not (anymore) authorise the first placement on the market due to the availability of suitable alternatives. SEAC thus agrees that by prohibiting secondary use and by limiting the reuse exclusively to the uses currently approved in the BPR and in the same country, the risks will

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

be addressed in a harmonised manner across those Member States that are on ECHA's list of countries which allow the use of creosote as biocidal product.

3.3. ANALYSIS OF ALTERNATIVES

3.3.1. Availability and technical and economic feasibility of alternatives

Summary of Dossier Submitter's assessment:

With regard to the Dossier Submitter's approach to the analysis of alternatives, it should be noted that the analysis of and conclusion on the applicability of chemical and non-chemical alternatives as suitable alternatives to creosote is heavily derived from the assessment performed in the context of the BPR. The BPR-related analysis of alternatives already looked at alternatives available for the first placing on the market of creosote for the treatment of wood, which are the same alternatives that are also considered relevant for reuses and secondary uses of treated wood.

In terms of scope, the analysis of alternatives presented in the context of this restriction proposal mainly focuses on the *reuse* of creosote-treated *railway sleepers*. This is because the condition of creosote-treated *utility poles* is reported to be too poor in most cases to allow further reuse after their first use and extraction. Thus, there should not be a need to find alternatives specifically for the reuse of utility poles. Moreover, the ban of *all secondary uses* is already considered justifiable as per the BPR-related alternative assessment. This assessment resulted in the withdrawal of the legal basis for the first placing on the market of creosote for all other uses than railway sleepers and utility poles. In other words, as the first use of freshly creosote-treated wood for these other uses (e.g. agricultural fencing) is not allowed due to the availability of suitable alternatives, it can be considered that the transition to technically and economically feasible alternatives is also possible in the context of secondary uses of recycled railway sleepers and utility poles⁷.

In terms of the technical performance requirements of alternative substances or technologies, the Dossier Submitter reports a service life of more than 30 and up to 60 years for railway sleepers and utility poles. The service life (or durability) in turn can be affected by several factors, such as natural decay processes, but also resistance to temperature and humidity fluctuations. In addition, the Dossier Submitter considers the compatibility of alternatives with existing characteristics of the use location (e.g. weight, conductivity and other factors relevant from an engineering point of view). Economic considerations consider the costs of using alternatives which include installation costs, monitoring costs, intervention costs, and tamping

⁷ In the context of uses of creosote-treated wood other than railway sleepers and utility poles, it is useful to note that not only the recycling of railway sleepers and utility poles for such purposes is restricted, but also the reuse of creosote-treated wood specifically marketed for these uses in the past is banned by the proposed restriction. Alternatives for this type of reuse are likewise considered to be covered by the BPR-related analysis of alternatives.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

costs.

Different chemical and non-chemical alternatives to creosote and creosote-treated wood have been identified, some of which are already commercially available on the market and partly also used already. One of the most promising **chemical alternatives** was identified to be copper hydroxide (incl. copper-water-based wood preservatives, e.g., Tanalith E and Impralit, and copper-oil-based wood preservatives, e.g. Tanasote S40) because it is reported to be relatively affordable. However, there are remaining doubts about technical feasibility in terms of comparable durability.

Non-chemical alternatives include concrete or reinforced concrete, steel, and composite plastic. Concrete material is reported to be an alternative already widely used for utility poles and for railway sleepers; however, consultation responses indicate that, especially in the case of railway sleepers, the economic feasibility of further extending the use is in question. The use of concrete sleepers may require costly modifications in order to accommodate this kind of sleepers on the track and possibly increased maintenance activity. In some locations, the track location or design may not be suitable at all for the use of concrete. The price of composite plastic is also reported to be a concern as it is indicated that the price is four times higher than for wood.

Furthermore, current and future decisions concerning creosote approval and conditions for marketing of creosote-containing products at European or national level, directly affect the availability and users' choice of alternatives in the context of reuse. The availability of **newly creosote-treated wood** plays an important role for railway sleepers because it means that railway companies in some countries can substitute the reuse of treated sleepers with the acquisition of newly treated sleepers. The renewed approval of creosote as an active biocidal substance was granted in 2022 and creosote-containing biocidal products may thus be authorised by EU Member States for impregnation of railway sleepers and utility poles where no suitable alternatives are available in the national context.

In regard to the adoption likelihood of the different alternatives, the assessment is impacted by considerable uncertainties. The use of concrete sleepers (and utility poles) was reported to be widespread already, yet the Dossier Submitter seems to find limited potential for this alternative to spread further in the context of use as sleepers. This is because concrete is not considered technically and economically feasible for all users and/or all use cases (e.g. specific tunnels, bridges, tight curves, switching points, low traffic lines or areas of temperature and humidity fluctuations). In contrast to this, a lighter material like wood is considered the more suitable option from technical and economic point of view. The Dossier Submitter considers newly creosote-treated wood to be a likely used alternative for the reuse of creosote-treated railway sleepers in relevant EU MS. This is based on the durability and cost at the time of Dossier development. However, at the time of Dossier preparation, it was not clear yet how many and which MS would continue to allow the first placing on the market of creosote for use on sleepers and utility poles at national level. It is stated that, if the reapproval of the creosote use under the BPR had not come into effect, copper hydroxide could have become an important alternative. Previously, chemical alternatives to creosote impregnation (e.g. water- or oil-based copper hydroxide products) seem to have been considered less attractive due to limited commercial availability, lower wood protection potential, higher prices, or other effects such as ignitability, conductivity or similar risk profile. Yet, the Dossier Submitter

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

considers that chemical alternatives show potential to become preferred alternatives as research and development efforts continue and economies of scale (resulting from increased adoption) may lower their price. For the time being, the Dossier Submitter seems to assign slightly higher potential to composite plastic sleepers, which could be considered more user-friendly than concrete and more durable than copper hydroxide, but still more expensive than newly creosote-treated wood.

A transitional period of 12 months after entry into force of the proposed restriction is proposed by the Dossier Submitter.

SEAC conclusion(s):

SEAC concurs with the Dossier Submitter that the potential chemical and non-chemical alternatives that will be suitable to replace the reuse and secondary use of wood treated with creosote will be the same as the alternatives identified for the first placing on the market of creosote-treated articles in the context of the BPR assessment. However, as indicated in the considerations of the re-approval of creosote under the BPR ((EU) 2022/1950)⁸, the available alternatives may have technical or economic implications that make them less feasible under specific circumstances in some Member States. SEAC agrees with the analysis of the Dossier Submitter, finding that, in such cases, newly creosote-treated wood for the use as railways sleepers or utility poles will still be available in these Member States. Thus, SEAC concludes that alternatives are available in all cases.

SEAC finds that some uncertainty remains with regards to which types of alternatives will be adopted for the reuse of creosote-treated sleepers (concrete, wooden, steel, composite plastic) and, in case wooden sleepers will be installed, it is uncertain which treatment will be used (creosote, or copper). Given the renewal of the approval of creosote under the BPR, railway companies formerly installing second-hand sleepers may either install newly creosote-treated wood or may opt for safer alternatives. Despite the uncertainty, SEAC agrees with the Dossier Submitter that the use of newly creosote-treated wood may be the most likely alternative for the re-users in those Member States that continue to allow the use of newly creosote-treated wood, as the other alternatives analysed under the BPR are not yet considered technically and economically feasible or commercially available in all cases. This may decrease the risk reduction potential of both restriction options (but more so of RO1

⁸ Consideration (13) Regulation (EU) 2022/1950: Alternatives to wood as a material for utility poles exist, including steel, concrete, fibreglass, composite materials or composite barrier sleeves installed around treated wooden utility poles. Each of these alternatives presents advantages (for example, rigidity; invariant physical characteristics; fire retardancy) and disadvantages (for example, the need for further testing; possible shorter service life or other technical concerns; more expensive when compared to wooden poles). Another alternative is the laying of transmission cables underground, in particular in urban and city environments, although this option may become more technically challenging depending on the natural terrain across which the network must traverse (for example, remote areas or mountains), and an installation and maintenance may appear more complex, costly and not feasible in all circumstances. A non-renewal of approval of creosote for use in wooden poles might create an economic impact on electricity and telecommunication infrastructure operators, and problems for the maintenance of certain transmission cables (for example, areas not easily accessible, rapid response in case of serious storms) in some Member States where substitution with other materials or underground transmission cables would be technically or economically difficult for the moment.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

because it bans reuse even by the original user in the same country).

For the cases of secondary use of creosote-treated articles for other applications, it also remains unclear which alternatives will be adopted, but it is certain that newly creosote-treated material is not allowed for these applications. SEAC notes that the analysis of alternatives considered in the context of the re-approval of creosote under the BPR resulted in the outcome that newly creosote-treated wood is not allowed anymore to be used for any other purpose than railway sleepers and utility poles, thus alternatives have been found to be adequate for these other uses. Based on the BPR assessment, the Annex XV dossier provide some information on alternatives for utility poles, equestrian and agricultural fencing, agricultural post/stakes and hop poles. Thus, SEAC assumes that suitable alternatives are available for the relevant applications, although details cannot be evaluated based on the provided information.

SEAC supports a short transitional period of 12 months as proposed by the Dossier Submitter.

Key elements underpinning the SEAC conclusion(s):

Scope of the analysis

SEAC is aware that substitution mainly plays a role for those stakeholders for whom reuse is not allowed anymore and for all secondary uses. Reuse is not allowed under Restriction Option 1, but it is still allowed in Restriction Option 2 for railway sleepers and utility poles for the original user and in the same country. SEAC therefore considers that the proposed restriction will not affect the original owners practice of reusing its own material. The Dossier Submitter substantiated that reuse mainly takes place for railway sleepers and that these sleepers are reused on low traffic lines, sidings and service facility tracks and on private sidings and tourist railroads. The new restriction proposal (RO2) implies that reuse will only take place by the larger national railway companies (i.e. the original users of treated sleepers) and not by the smaller ones that reuse sleepers from other entities, e.g. private companies and tourist lines.

Approach to the analysis of alternatives

SEAC notes that the Dossier Submitter based their assessment mainly on documents produced during the re-assessment of the approval of creosote under the BPR and some documents produced earlier for the French national railways, which primarily focused on the railway application. SEAC is of the opinion that focussing more on the specific applications rather than on alternatives to new creosote (as assessed in the context of the BPR) would have facilitated the analysis of alternatives, specifically for those applications where secondary use takes place.

Performance requirements of alternatives and consequences of lower performance

Performance is mainly described in terms of service life. SEAC notes that the Dossier Submitter reports a service life of 30 years at the very minimum and up to 60 years for newly creosote-treated railway sleepers. For reused creosote-treated sleepers, the Dossier Submitter indicates that the durability would still be between 20 and 30 years. It cannot be excluded that a lower performance level in terms of durability may generally be acceptable

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

for some users if increases in the frequency of control, maintenance and replacement, and thus cost, can be accommodated. SEAC notes that safety of the use of railway tracks does not necessarily seem to be a predominant concern in the assessment of alternatives. SEAC notes that the Dossier Submitter further considers the compatibility of alternatives with existing characteristics of the railway track (e.g. weight, conductivity and other factors relevant from an engineering point of view). The Dossier Submitter does not define a concrete level of compatibility that needs to be achieved. However, it is clear to SEAC that low technical compatibility of an alternative would result in costs that may render the operation of the track unsustainable at some point (if very far-reaching adjustments would be required to make alternatives compatible with the track).

SEAC concludes that the presented performance requirements can be considered relevant and as far as concrete levels have been reported, they are justified.

Identification of alternatives

SEAC concurs with the Dossier Submitter that reuse and secondary use of creosote-treated wood are mostly relevant in relation to railway sleepers, as reuse or secondary use of the other applications is expected to be less likely because the deterioration of the treated wood in these application over time is higher.

In Table C-1 of the Annex XV Report, the Dossier Submitter provides some general as well as some more detailed qualitative information on the identified alternatives to creosote-treated wood. The available information on alternatives is summarized in Table 3.

SEAC considers that the Dossier Submitter's list of identified alternatives covers all relevant uses of wood treated with creosote and related substances and that the list can thus be considered complete given the scope of the assessment.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Table 3: Overview of alternatives mentioned in the Annex XV Dossier (mainly based on Table C-1)

Original use	Type of subsequent use	Context of subsequent use	Alternatives identified
Railway sleeper	Reuse	Railway sleeper	<ul style="list-style-type: none"> • Newly creosote-treated wood (available in 23 out of 27 MS + in N. Ireland and Switzerland) • Copper hydroxide or other copper-based products on wood (different products, under development) • Composite plastic (under development) • Concrete or reinforced concrete (would require modification of track superstructure) • Steel (would require modification of track superstructure)* • Untreated tropical wood (much shorter service life)*
	Secondary use	Agricultural and equestrian fencing Agricultural poles/posts/stakes (e.g. hop	<i>Not assessed in the restriction proposal. Generally, alternatives have been identified in the context of the BPR assessment and have been found suitable.</i>

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

		<p>poles)</p> <p>Wood used in harbours and water ways</p> <p>Landscaping</p> <p>Potential other uses</p> <p><i>Some secondary uses with high potential for exposure are already considered sufficiently restricted by entry 31 (e.g. uses indoors, in toys and on playgrounds, with food contact or as garden furniture).</i></p> <p><i>However, entry 31 includes a derogation for the placing on the second-hand market of wood treated before 2003.</i></p>	<p><i>Newly creosote-treated wood will not be an alternative for the subsequent uses mentioned.</i></p>
Utility pole	Reuse	Utility pole	<p><i>Not assessed in much detail in the restriction proposal because reuse of utility poles is considered unlikely even in the baseline scenario, and thus the proposed restriction should not prompt the need to find a suitable alternative.</i></p> <ul style="list-style-type: none"> • Newly creosote-treated wood (available in 13 out of 27

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

			<p>MS + Norway and N. Ireland)</p> <ul style="list-style-type: none"> • Copper hydroxide or other copper-based products on wood (different products, under development) • Composite plastic (under development) • Concrete or reinforced concrete • Steel
	Secondary use	<p>Unknown</p> <p><i>Some secondary uses with high potential for exposure are already considered sufficiently restricted by entry 31 (e.g. uses indoors, in toys and on playgrounds, with food contact or as garden furniture).</i></p> <p><i>However, entry 31 includes a derogation for the placing on the second-hand market of wood treated before 2003.</i></p>	<p><i>Not assessed in the restriction proposal. Generally, alternatives have been identified in the context of the BPR assessment and have been found suitable.</i></p> <p><i>Newly creosote-treated wood will not be an alternative for the subsequent uses mentioned.</i></p>
Other applications (agricultural and	Reuse	Same applications	<p><i>Not assessed in much detail in the restriction proposal. Generally, alternatives have been identified in the context of</i></p>

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

<p>equestrian fencing, agricultural poles/posts/stakes (e.g. hop poles), wood used in harbours and water ways</p>			<p><i>the BPR assessment and have been found suitable.</i></p> <p><i>Newly creosote-treated wood will not be an alternative for the subsequent uses mentioned.</i></p> <ul style="list-style-type: none"> • Copper hydroxide or other copper-based products on wood (different products, under development) • Composite plastic (under development) • Concrete or reinforced concrete • Steel • Potential other alternatives, depending on the specific use
	<p>Secondary use</p>	<p>Unknown</p> <p><i>Some secondary uses with high potential for exposure are already considered sufficiently restricted by entry 31 (e.g. uses indoors, in toys and on playgrounds, with food contact or as garden furniture).</i></p>	<p><i>Not assessed in the restriction proposal. Generally, alternatives have been identified in the context of the BPR assessment and have been found suitable.</i></p> <p><i>Newly creosote-treated wood will not be an alternative for the subsequent uses mentioned.</i></p>

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

		<i>However, entry 31 includes a derogation for the placing on the second-hand market of wood treated before 2003.</i>	
--	--	---	--

* Seem less relevant because only briefly mentioned in Annex

DRAFT

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Assessment of availability and technical and economic feasibility of alternatives

The analysis of the Dossier Submitter mainly focuses on reuse and secondary use of sleepers and utility poles. For consideration of the alternatives, the applications for which these second-hand sleepers and utility poles are used as indicated in column 3 of Table 3 above have been taken as a starting point. A quantitative analysis was restricted to the reuse of creosote-treated sleepers. The use of second-hand material for all other applications, including utility poles, is presented qualitatively and mainly contained in Table C-1 of the Annex XV dossier a summary of which has been provided in Table 3. Additional information on the availability and the technical and economic feasibility was provided in the consultation (e.g. #3948). The Dossier Submitter concluded that within the scope of the proposal, the various alternatives as mentioned under the BPR are not considered technically and economically feasible or already available. Therefore, the Dossier Submitter considered primary use of freshly creosote-treated wood to be the only socio-economically available alternative to reuse while waiting for socio-economically suitable and affordable chemical and non-chemical alternatives for wood treated with creosote. SEAC does not concur with that conclusion in general. The summary provided in Table C-1 of the Annex XV dossier suggest that most of the alternatives are technically feasible although it is not always made clear whether they are also technically feasible under all circumstances. For instance, concrete sleepers cannot easily be used on switches, bridges and in tunnels. Unfortunately, the technically feasible alternatives for these specific circumstances are not mentioned in the Annex XV dossier. The consultation delivered some additional information which suggests the availability of technical feasible alternatives for railway sleepers and poles.

The Dossier Submitter notes differences in the technical applicability of the alternatives among the Member States related to their geographical conditions. The renewed approval of creosote under the BPR (Regulation (EU) 2022/1950) mentions, for instance, Member States where installation and maintenance of the electricity and telecommunication infrastructure may appear more complex, costly and not feasible under all circumstances in case of non-approval of creosote. SEAC is of the opinion that these specific cases and the geographic conditions could have deserved more attention as they determine the possibility of replacement.

Although the number of second-hand sleepers used for fencing and tree stakes (secondary use) is not known, the Annex XV report (Table B-1) indicates that 35% of the creosote used in the EU is dedicated to these two applications, suggesting that the number of sleepers used for these purposes may also be considerable. Some data on secondary use of railway sleepers is presented in the Annex XV report, but no quantitative data was available to the Dossier Submitter. Information on alternatives for the other uses (e.g. agricultural and equestrian fencing, poles/posts/stakes, wood used in harbours and water ways and landscaping) in the Annex XV dossier is limited to qualitative information and does not provide insight in the market penetration of these alternatives. Several alternatives, such as concrete, steel, composite plastic and copper-salt-based preserved wood poles, are available to the market, whereas others are still under development (e.g. Copper-oil-based wood preservatives). SEAC notes that analysing these markets may be a challenge and concurs with the approach of the Dossier Submitter, assuming that the alternative analysis performed under the BPR for newly creosote-treated wood would be sufficient to establish the availability and the technically and

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

economically feasibility of alternatives. As no approval was given to the use of newly creosote wood for these applications SEAC concludes that alternatives are available and technically and economically feasible for these applications.

The Annex XV dossier contains a limited amount of information on economic feasibility. The overview in the Annex XV dossier makes clear that most alternatives are more expensive to purchase than the second-hand railway sleepers and that for concrete-treated sleepers even reconstruction of the railway track would be necessary. Concrete is considered not to be an economically feasible alternative. In contrast, the Dossier Submitter considered primary use of creosote treated wood to be the only socio-economically available alternative to secondary-use, whereas the substitution based on new wooden sleepers treated with copper hydroxide could result in affordable economic impacts. The Dossier Submitter expected hardly effects of the substitution on the national railways but indicated considerable uncertainties in concluding on the private railway companies. Similar thoughts were conveyed in the consultation. The Dossier Submitter considered it likely that substitution to composite plastic sleepers or wooden sleepers treated with copper hydroxide could generate significant additional costs for the private railways. Therefore, purchase of newly creosoted sleepers in these Member States where this is still allowed is plausible but may also be accompanied by increased purchasing costs compared to reuse of sleepers. SEAC notes that, while the SEAC guidance on economic feasibility⁹ states that there is no specific threshold below which any increase in costs can be considered economically feasible, this is not the same as saying any increase in costs is economically infeasible. SEAC therefore considers that alternatives should be economically feasible despite the increase in prices.

SEAC regrets that the destination of the second-hand sleepers has been chosen as starting point for the analysis of alternatives rather than the applications that use the second-hand sleepers. Taking the function and/or the application would possibly have provided more insight into the possible alternatives and the limitations. For example, comment #5167 indicated that the alternative to reuse was incineration and that they still are searching for alternatives to creosote poles. In quite some Member States underground transmission lines are used for electricity transmission although there may be exemptions where the poles are still necessary. Generally, SEAC lacks insight in such considerations for the railway sleepers, the poles but also for the other applications.

Consultation comments

The public consultation did indicate a preference for reuse of railway sleepers by the French tourist lines organisation (#3753) but unfortunately, they did not provide information on the most suitable alternative sleepers and on the associated socio-economic aspects.

The German DB Netz AG indicated not to reuse creosote sleepers, their removed sleepers are incinerated (comment #3819), which suggests that alternatives are used on their lines.

The Swiss railways (comment #4295) uses concrete and steel sleeper as an alternative, where

⁹ https://echa.europa.eu/documents/10162/17091/seac_authorisations_economic_feasibility_evaluation_en.pdf

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

technically feasible. They further mention polymeric sleepers and wood treated with copper oil but indicate that field tests are still on-going to find an economical and functional alternative. They indicate that the use of copper as a preservative may hinder the biochar production through pyrolysis of the discarded railway sleepers because of the residual presence of copper in biochar (comment #4295).

In the public consultation comment #3948 the German Competent Authority indicates that in Germany alternatives have replaced creosote railway sleepers in all use situations (including rail track, tracks switches and bridges), which suggest that even in these situations alternatives are currently available. Alternatives mentioned are untreated oak wood sleepers and recycled polymers and Fiber-Reinforced Foamed Urethane sleepers (FFU). The plastic sleepers were shown to be economically feasible for the national railway company but comment #3948 indicated that the situation for private/touristic railway networks in Germany might be different.

The Northern Ireland Electricity Network Ltd (comment #5167) is exploring all alternative options available for their utility poles with a view to moving away from the use of creosote-treated wood poles on its network ahead of the deadline of October 2029 for new creosote wood. They are running trials, but these have not yet resulted in an immediately viable alternative. They indicated that the alternative to secondary uses of poles would be to dispose of the pole as hazardous waste, with limited advantage for the environment, difficulties with immediate or short-term accommodation to the disposal of all poles and huge cost implications because the poles have to be transported to Great Britain.

The German authority (comment #3948) indicates that new creosote wood is not used anymore for utility poles, however, Germany does not communicate on the alternative being used instead.

Information submitted during the consultation indicates that creosote-treated utility poles have been replaced by other means of transport (comment #3948), which makes SEAC believe that substitutes are generally available, and technically and economically feasible.

Most likely adopted alternative

The Dossier Submitter concludes that the use of newly creosote-treated wood is currently the only socio-economically available alternatives to reuse while waiting for economically suitable and affordable chemical and non-chemical alternatives of wood treated with creosote. This is based on the high durability and comparatively lower cost at the time of the development of the restriction proposal. However, the use of freshly treated wood may not be available in all Member States, depending on whether the country opts in for the continued first placing on the market of creosote-treated wood (for railway sleepers and/or utility poles) within the BPR.

The analysis of alternatives by the Dossier Submitter also indicates that the development of copper hydroxide as an affordable alternative with sufficient performance is considered less likely in the coming years given the recent reapproval of creosote by the BPR. It is stated that, if the reapproval of the creosote use under the BPR had not come into effect, copper hydroxide could have become an important alternative. SEAC notes, however, that the Annex XV report has not analysed by means of a survey whether the managers in charge of the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

railway tracks may seek to replace the old creosote-treated wood by safer alternatives or by new wood freshly treated with creosote. Furthermore, it seems that the Dossier Submitter does not completely discard copper hydroxide as a suitable alternative and seems to see promising development possibilities for this alternative in the future as research and development efforts continue and economies of scale (resulting from increased adoption) may lower their price.

The replacing of wooden sleepers with concrete sleepers on less frequently used railway lines is not considered feasible by the Dossier Submitter from an economic perspective due to additional and costly construction measures that would have to be implemented to support the installation of concrete sleepers and the possibly increased need for maintenance. The use of concrete sleepers (and utility poles) was reported to be widespread already, yet the Dossier Submitter seems to find limited potential for this alternative to spread further in the context of use as sleepers. The Dossier Submitter indicates that concrete sleepers are heavier and less resistant to temperature and humidity fluctuations than wooden sleepers. The limited economic feasibility is considered to apply more significantly to the tourist lines than to high traffic lines, but this could be better substantiated. The service life of 40 years for concrete and steel suggest that costs is the main disadvantage for these alternatives. The Dossier Submitter also indicates that the replacement of creosote wood railway sleepers may not be possible on railway tracks in all cases and mentions the difficulties in using concrete sleepers for specific tunnels, bridges, tight curves and switching points.

With regard to composite plastic sleepers, the Dossier Submitter's assessment seems to come to an overall positive conclusion, indicating that this type of alternative could be a promising substitute for the reuse of creosote-treated sleepers. This alternative represents a durable but lighter material which is considered the more suitable option from technical and economic point of view.

SEAC agrees with the Dossier Submitter that copper hydroxide products or plastic composite sleepers appear to be potential alternatives to creosote sleepers, the latter being considered as the potentially best alternative. The plastic composite sleepers could be considered more user-friendly than concrete and more durable than copper hydroxide, but yet still more expensive than newly creosote-treated wood.

For secondary-use applications, the analysis does not provide quantitative information, neither does it conclude on which alternative will most probably be chosen. Both the Annex XV dossier and the third-party consultation comments make clear that secondary uses currently exist. The German Competent Authority pointed out that soil contamination was caused by imported hop poles (for hop growing) impregnated with tar oil in the county of Bavaria and indicated that there seems to be reports of old railway sleepers installed as slope supports, fence posts or other construction elements (comment #3948). The French National Railway Infrastructure Managers (NRIM) indicated secondary use as support of embankments (comment #3797). As creosote has not been approved for these applications, newly creosote-treated wood will not be an alternative. However, it remains unclear which alternative will be adopted. Although SEAC believes that sufficient alternatives exist for most of these applications, these markets could have been better scrutinised in the Annex XV dossier concerning the market penetration of alternatives and the limitations.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Overall, SEAC concludes that the assessment of the adoption likelihood of the different alternatives is impacted by considerable uncertainties. However, SEAC concurs with the Dossier Submitter that the potential chemical and non-chemical alternatives that will be suitable to replace the reuse and secondary use of wood treated with creosote and related substances will be the same as the alternatives identified for the first placing on the market of creosote-treated articles in the context of the BPR assessment. SEAC agrees with the analysis of the Dossier Submitter, finding that, where non-creosote alternatives are not ready yet, newly creosote-treated wood for the use as railways sleepers or utility poles will still be available in these Member States. Thus, SEAC concludes that alternatives are available in all cases. This has been confirmed by comments received during the consultation.

Transitional period of the restriction

SEAC agrees with the Dossier submitter that a long transitional period is not necessary. SEAC therefore supports the 12 months proposed by the Dossier Submitter.

As mentioned before, the BPR only re-approved newly creosote-treated wood for railway sleepers and utility poles, but not the other applications that were previously approved. This suggests that, for these applications, sufficient alternatives to newly creosoted wood were considered to be available. These alternatives will also be available where second-hand creosote wood has been applied for the same applications (e.g. fencing, agricultural stakes, hop poles). Therefore, SEAC considers that a 12-months transition period, as proposed by the Dossier Submitter, will be sufficient to transfer to safer alternatives for the applications subject to secondary use.

SEAC considers that for stakeholders that will not be able to purchase second-hand creosote wood the time needed for the acquisition of new creosote-treated sleepers instead of reusable sleepers should not be longer than 12 months. It should also be noted that the restriction would not require removal of treated wood that is still in use in its location at the time of entry into force of the restriction. As indicated in Figure 4, the restriction only applies when treated wood is subjected to reuse or secondary use.

Regarding the ban of placing on the market of treated wood for secondary uses, there should not be no long time period needed for the halt of these practices. The availability of suitable alternatives for second-hand uses of creosote-treated wood is considered to justify such a short transitional period. SEAC considers it preferable to interrupt such practices as soon as possible.

SEAC overall concludes on basis of the annex XV report, the comments received during the consultation (e.g. #3948) and the BPR approval for creosote treated wood that alternatives are commercially available and technically and economically feasible and that a 12 month period would be sufficient to implement the proposed restriction.

3.3.2. Risk of alternatives

Summary of Dossier Submitter's assessment:

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

According to the Dossier Submitter's specifications for alternatives, a suitable alternative should not be classified to have CMR or endocrine disrupting properties.

The use of newly creosote-treated wood as an alternative is considered to entail similar or slightly higher levels of risk compared to the reuse of creosote-treated wood. The risk of copper hydroxide and non-chemical alternatives was not assessed by the Dossier Submitter. However, both during the SEAC-59 discussion and through the consultation (comment 4295) awareness was raised on the presence of and potential problems with copper in soil and/or groundwater and during waste treatment of the sleepers.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.4. JUSTIFICATION THAT THE SUGGESTED RESTRICTION IS THE MOST APPROPRIATE EU WIDE MEASURE

Summary of the proposed restriction

Creosote-treated wood is already subject to some regulatory provisions. The **first placing on the market** of creosote-treated wood (incl. import) is in the remit of the BPR regulation. The subsequent placing on the market is in the remit of REACH and is currently regulated by entry 31. The risks identified by the Dossier Submitter are intended to be addressed by the proposed restriction.

Two different restriction options (ROs) have been assessed by the Dossier Submitter:

- RO1: **Ban on all reuses and secondary uses** of creosote-treated wood authorised under BPR and already placed on the market
- RO2: **Ban on all secondary uses** of creosote-treated wood authorised under BPR and already placed on the market with **reuses being allowed solely for the same use as the original use, in the same country, under similar conditions and by the same original user.**

Both RO1 and RO2 are considered to entail positive environmental and human health impacts compared to the baseline by eliminating all secondary uses, which are especially relevant for exposure of the general public. Both RO1 and RO2 yet allow residual risk for the environment and human health, as the risk of the original use would stay unchanged. The extent to which the residual risk of RO2 is expected to differ from that of RO1 is considered to be strongly affected by the availability of alternatives. The possibility to use newly creosote-treated wood as an alternative to reuse, would reduce the advantage of RO1 in terms of risk reduction.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Since newly treated wood is indeed expected to be available as an alternative, the Dossier Submitter considers that RO1 would likely increase the use of newly creosote-treated wood and chooses RO2 as the preferred restriction option (also taking into account qualitative socio-economic arguments and principles of recycling and circular economy). A transitional period of 12 months after entry into force of the proposed restriction is proposed by the Dossier Submitter.

The proposed restriction includes the following conditions:

- Ban on the placing or making available on the market (incl. import) of all creosote-treated wood with the active substance creosote and substances covered by the entry 31 at the exemption of creosote (Grade B and Grade C creosote as specified in European Standard EN 13991:2003, EC:232-287-5, CAS: 8001-58-9) specifically approved under BPR.
- Creosote-treated wood will be allowed to be reused solely by the same user in the same country and for the same use as specifically allowed under BPR (e.g. railways sleeper reused as railway sleeper, communication pole reused as communication pole).
- To help the enforceability and monitorability, it is suggested that a permanent labelling of creosote-treated wood with the appropriate information regarding hazards, risk mitigation measure and allowed follow-up of treated articles is discussed under BPR while authorizing the first placing on the market.
- At the end of life, all creosote-treated wood (even if treated before December 2002) must be disposed under the Waste Framework Directive (WFD, 2008/98/EC) as hazardous waste.
- No secondary use and second-hand market of creosote-treated-wood will be authorized (not even for wood treated before December 2002). The creosote-treated wood already used in secondary application needs to be disposed under the Waste Framework Directive (WFD, 2008/98/EC).

The Dossier Submitter considers the proposed restriction to be the most appropriate EU wide measure to address the identified risk by virtue of its effectiveness, practicality (including enforceability) and monitorability.

3.4.1. Regulatory risk management options other than restriction

Summary of Dossier Submitter's assessment:

The Dossier Submitter conducted an analysis of risk management options (RMOs) to identify the most appropriate measure to address the identified risks. The RMOs assessed include regulatory measures under REACH other than restriction and other existing EU legislation.

The following regulatory RMOs, other than a restriction under REACH, have been considered by the Dossier Submitter:

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- SVHC identification (REACH Article 57) and listing on Annex XIV
- Labelling requirement for the treated article to provide permanent information on risk and monitoring at first placing of the market under the BPR (!)

Both of these approaches were dismissed by the Dossier Submitter as being inferior to the proposed restriction under REACH. The main argument considered by the Dossier Submitter against regulation through authorisation (Annex XIV) is that reuse and secondary use of creosote-treated articles would not be in its remit. In addition, it is emphasized that substances used in biocidal products in the scope of Directive 98/8/EC are not eligible for regulation via authorisation under REACH.

Furthermore, a labelling requirement was not considered sufficient to control the risks arising from PBT and non-threshold carcinogen substances.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

SEAC conclusion(s):

SEAC considers that, among all the risk management options assessed, a restriction represents the most appropriate regulatory risk management option as it is expected to be effective to address the identified risks. Authorisation is not a feasible option, and a labelling requirement alone will have a limited impact. SEAC also considers that the proposed restriction will result in increased clarity by simplifying the current entry 31 in Annex XVII of the REACH Regulation and will guarantee the alignment with the new BPR provisions.

SEAC considers that prohibiting secondary uses will limit exposure of the general population and reduce releases to the environment. Concerning the ban of reuse by other users than the original one, SEAC notes that the service life of the creosote-treated wood will be shortened considerably reducing the potential environmental benefits in terms of circular economy.

Key elements underpinning the SEAC conclusion(s):

SEAC concurs with the Dossier Submitter that authorisation is not a suitable risk management option. In fact, as specified in article 56(4b) of REACH, authorisation shall not apply to substances used in biocidal products.

SEAC considers that labelling requirements and obligations under the BPR for storage and marketing of creosote treated wood can be a useful tool but not sufficient to control the risks arising from PBT and non-threshold carcinogen substances. Furthermore, SEAC has doubts whether labelling of the treated wood will substantially affect behaviour related to secondary use and questions whether the labels will still be present after 20 or more years of service.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

SEAC notes that a few pieces of other legislation are also discussed in the Annex XV report. These include the Biocidal Products Regulation No (EC) 528/2012 (BPR) and the Waste Framework Directive No 2008/98/EC (WFD). However, the BPR regulates the first placing on the market only of creosote-treated wood and does not regulate the subsequent placing on the market. Currently, only the use for railway sleepers and utility poles are approved. The Waste Framework Directive defines the appropriate management of the treated articles at the end of life. SEAC concurs with the Dossier Submitter that according to the definitions in the Waste Framework Directive, reuse may take place before products reach the waste stage indicating that the WFD is not the proper tool for managing reuse.

SEAC considers that there are other additional reasons for considering that a restriction is the most appropriate EU-wide measure. The first reason is the existence of a previous restriction, i.e. entry 31, which would need to be aligned with the new BPR provisions and that requires to be simplified to avoid misinterpretations of the legal text. Secondly, the French national regulatory provision, which aimed at restricting the use and the placing on the market of certain wood treated with creosote and other creosote-related substances, had to be notified under the safeguard clause Article 129 of REACH. This clause obliges the Member State that took a provisional measure on justifiable grounds when urgent action is essential to protect human health or the environment to initiate a Community restriction's procedure by submitting a dossier to the European Agency of chemical products (ECHA), in accordance with Annex XV of REACH.

SEAC considers that prohibiting all secondary uses and limiting the re-use to the original owners will prevent the second-hand market.

SEAC notes that as shown by internet searches showed that old railway sleepers are still on sale in most EU Member States without any control on their final destination and final application.

RAC concluded that an increased control will reduce the possibilities for any user to buy old creosote-treated wood via internet which reduces risks to the general population (mainly to carcinogenic PAHs) possibly buying the old creosote-treated wood. RAC considered an increased control of old creosote-treated wood and reduced cancer-risk by the general public as more important than the potentially increase in environmental releases as newly treated wood, which may be applied by professional users as alternative, is expected to release more creosote than old wood.

3.4.2. Effectiveness in reducing the identified risk(s)

Summary of Dossier Submitter's assessment:

The Dossier Submitter proposes two restriction options (RO1 and RO2). RO1 restricts all reuse and secondary use of creosote treated wood authorised under BPR and already placed on the market. Based on the derogation introduced by RO2, the reuse should occur under similar conditions as specified under the BPR for the same use in the same country and by the same original user and would ban all secondary uses. The Dossier Submitter considers RO2 as being appropriate to address the identified risks, mainly aiming at protecting the general public,

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

because professional users are already subject to/aware of the strict conditions defined under the BPR for use of creosote-treated wood.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.4.3. Socioeconomic analysis

3.4.3.1. Assessment of the costs and benefits of different provisions of various restriction options

For the purpose of analysing costs and benefits, SEAC considered the different components (building blocks) making up the Dossier Submitter's proposed ROs. The building blocks used for the proposed restriction by the Dossier submitter are (a) reuse by the original user, (b) reuse by other professional users, (c) secondary use by the original user, (d) secondary use by other professional users and (e) secondary use by the general public. For clarity in presenting the analysis, in addition to the two restriction options proposed by the Dossier Submitter (RO1 and RO2), three additional notional restriction options (RO3, RO4, and RO5) with different combinations of these components, are presented. This is to make sure that the assessment is as complete as possible.

All options ban the secondary use by the general public as this is one of the described main aim and benefit of the restriction proposed by the Dossier Submitter. Therefore, the options differ only with respect to what is restricted or allowed for the original user and other professional users in terms of reuse and secondary use of creosote-treated sleepers and utility poles. As per the definition of reuse, reuses can only involve the same type of use as the original use (e.g. a railway sleeper is reused as railway sleeper and utility poles as utility poles). It is thus useful to note that reuse can only concern the original user or other similar companies that may use second-hand articles in the same context. Reuse by the general public is not considered feasible.

The restriction options based on the building blocks are described as follows:

- RO1 (as defined by the Dossier Submitter): **Ban of all reuses and secondary uses** of creosote-treated wood;
- RO2 (as defined by the Dossier Submitter): **Ban of all secondary uses** of creosote-treated wood and **limitation of reuses to the original user**, in the **same country** and under **similar conditions**;
- RO3 (additionally considered by SEAC): **Ban of all secondary uses** of creosote-

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

treated wood but **allowing reuses by both the original user and other professional users**, in the **same country** and under **similar conditions**;

- RO4 (additionally considered by SEAC): **Ban of secondary uses and reuses** of creosote-treated wood **by users other than the original user**, while **allowing secondary uses and reuses** of creosote-treated wood **by the original user** in the **same country**;
- RO5 (additionally considered by SEAC): **Ban of secondary uses** of creosote-treated wood **by the general public**. **Both the original user and other professional users are allowed to implement secondary uses and reuses** in the **same country**.

The following figure summarises the main differences between the restriction options in a simplified way.

Figure 5: Overview of all restriction options considered by SEAC.

Restriction Options		RO1	RO2	RO3	RO4	RO5
Reuse	by original user	X	✓	✓	✓	✓
	by other professional user	X	X	✓	X	✓
Secondary use	by original user	X	X	X	✓	✓
	by other professional user	X	X	X	X	✓
	by general public	X	X	X	X	X

As described by the Dossier Submitter for RO1 and RO2, also in the other three options:

- all reuses and secondary uses of treated wood are limited to the same country in which the first placing on the market occurred in line with BPR provisions, which in turn is subject to national approval;
- for reuse (only), similar conditions are required as defined in the context of the BPR.

SEAC considers that the three additional options would deserve an in-depth assessment as they address attributes of the current regulatory situation and the decision to restrict these elements should be based on the consideration of relevant benefits and costs. SEAC finds that the consideration of the additional options can help to better compare all potential restriction options and to create an “à la carte” restriction that would minimise as far as possible the costs incurred by the EU society while maximising the benefits to the environment and to human health.

3.4.3.2. Costs

Summary of Dossier Submitter’s assessment:

The Dossier Submitter focuses the economic impact assessment on RO2, which was chosen

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

as the preferred restriction option mainly in light of risk-related considerations. A brief qualitative overview is provided for RO1, but not suggesting considerable differences to RO2.

As a first step in the cost assessment for RO2, the Dossier Submitter estimated the number of railway sleepers that are reused each year by users other than the original user across the EEA and they modelled the replacement schedule in the baseline and the restriction scenario based on changes in the assumed service life of sleepers.

The cost categories incurred by private railway companies as considered by the Dossier Submitter include the following:

- Acquisition costs of railway sleepers,
- Installation costs of railway sleepers,
- Monitoring/maintenance costs of railway sleepers,
- Intervention costs of railway sleepers,
- Tamping costs of railway sleepers.

The result of the analysis described the annualised net present value of extra costs (in million €) and the percentage change in this cost incurred by private railway companies due to the proposed restriction on reuse. Additional sensitivity analysis was also carried out by the Dossier Submitter.

In addition to the costs incurred by private railway companies, the Dossier Submitter analyses costs incurred by national railway companies, which are mainly represented by the following:

- Revenue losses related to the foregone sale of creosote-treated railway sleepers that could be reused by other users,
- Waste disposal costs related to creosote-treated railway sleepers.

The resulting total annualised net present value of extra costs incurred by national and private railway companies due to the proposed restriction on reuse ranges between 150,000€ and 9,000,000€. This considers a model of 'smoothed replacement costs', in which the substitution of reused sleepers is spread out over time. Differences in the cost ranges can be observed depending on which alternative is considered to be used: newly creosote-treated wood, copper hydroxide-treated wood, or composite plastic.

In terms of the cost distribution, it is considered that national railway companies incur only a marginal share of the costs (not impacting the quality or price of transport), whereas private railway companies are expected to face potentially higher cost increases. However, it is noted that considerable levels of uncertainty make it difficult to conclude on the quality or price of transport by these providers.

The non-monetary costs (e.g. functioning of structures and their sustainability) and indirect

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

costs (e.g. for industrial facilities or costs related to GHG emissions) of the proposed restriction could not be quantified by the Dossier Submitter but have been discussed qualitatively.

The Dossier Submitter does not present a cost assessment for the other use sector of creosote-treated wood, namely the use for utility poles for electricity and telecommunications. The Dossier Submitter mentions that responses to stakeholder hearings have indicated the reuse of utility poles is impossible due to degradation of the wood and damage of the utility pole when removing it from its original location.

A cost assessment for the prohibition of sales of creosote-treated wood as secondary uses is not presented either.

SEAC conclusion(s):

SEAC considers that the proposed restriction would potentially entail costs mainly to the private railway managers, to the secondary users of railway sleepers and utility poles and, to a lower extent, to the National Railway Infrastructure Managers (NRIMs) and to the users of the trains. The intermingling of effects of the restriction options on both the supply side (waste or second-hand creosote-treated wood) and demand side (second-hand creosote-treated wood or different alternatives in different Member States), the comparison with the current restriction in entry 31 and the effects on both human exposure and environmental releases do not help SEAC in establishing a clear baseline and thus understanding the costs of the proposed restriction.

Concerning the two restriction options proposed by the Dossier Submitter, SEAC considers that the main difference between RO1 and RO2 is that RO1 would entail higher costs for the NRIMs (which are the original users of the treated wood) that would no longer be able to reuse the railway sleepers. In contrast to this, reuse by the original users and in the same country would still be allowed in RO2 (see overview in Figure 2 and Figure 3). For the private railway companies that are buying second-hand sleepers in the baseline, the costs are the same under RO1 and RO2, as in both ROs they have to substitute reused sleepers with alternatives.

For secondary users, costs are generally the same under RO1 and RO2 (see Figure 5). However, SEAC cannot conclude on the extent of costs incurred due to the restriction by the secondary users as limited data are available on the quantities of used railway sleepers or utility poles that are subjected to secondary uses.

Moreover, SEAC notes that, for re-users, the choice of alternatives, and hence the acquisition costs associated to this choice, are highly uncertain and strictly dependent on the future investment strategies and financial capacity of the managers of private railways or electricity Distribution System Operators (DSOs). They might decide to invest in a more expensive alternative (such as concrete) that may also last longer (although that has not been substantiated in detail in the Annex XV dossier). The choice further depends on the technical issues related to the installation that might induce re-users to use sleepers newly treated with creosote and creosote-related substances as an alternative to restricted second-hand wood articles. In this latter case, the investment costs are expected to be lower than for concrete

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

(but still higher compared to the acquisition of second-hand sleepers for reuse in the baseline).

In general, aside from the financial capacity of the current re-users or secondary users and mentioned technical issues, SEAC notes that the affordability of the substitution costs strictly depends on the availability of the alternatives and on their current and future market prices.

Key elements underpinning the SEAC conclusion(s):

The Annex XV report indicated that the reuse and secondary use of creosote-treated wood mostly concerns railway sleepers and to a lower extent, utility poles. In the proposed restriction (RO2) only reuse of sleepers and utility poles by the original user for the same use is allowed.

In the absence of sufficient quantitative information, in the following paragraphs SEAC qualitatively discusses the costs of the restriction option as proposed by the Dossier Submitter (RO2) for each of the potentially affected actors. Furthermore, SEAC comments on the differences or similarities with the costs of the other four restriction options. This difference-based structure is meant to allow a clear and transparent comparison of cost associated to the different restriction options. SEAC considers that this structure adopted for the cost assessment coupled with the "building block approach" adopted on the benefit side (see benefit section) could help the decision makers to better understand the impacts of each of the elements that are part of the proposed restriction, in order to consider a restriction that would minimise as far as possible the costs that will be borne by EU society, while maximising the benefits on the environment and to human health.

3.4.3.2.1. Socio-economic impacts on secondary users of creosote-treated sleepers and utility poles

SEAC notes that the Annex XV Dossier does not consider the costs for secondary users of sleepers and utility poles treated with creosote. SEAC acknowledges that a quantification of such costs seems very complicated, as the sales of sleepers often occur via the internet and it is not easy to know how many sleepers or utility poles are bought for each type of application (fences, docks in harbours and waterways, stakes, embankments, etc.) and at what price.

SEAC assumes that the choice of using second-hand sleepers or utility poles for secondary applications (mainly as fences, docks, stakes and embankments) is made by farmers, breeders or other actors (including NRIMs and NDSOs), based on economic considerations and on other (mainly technical) reasons. As a consequence, SEAC expects that all restriction options restricting the secondary use will increase the costs for these actors mainly in terms of costs for the acquisition of fences, stakes, embankments, etc. made of alternative materials.

It has to be noted that the current BPR approval does not allow the use of fresh creosote in the treatment of wood for other applications than sleepers and utility poles. Hence, for instance, for the secondary use of creosote-treated wood as fence the alternative could not be wood freshly treated with creosote.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Concerning the reuse and secondary use of utility poles, SEAC notes that these uses were not assessed by the Dossier Submitter, as the stakeholder consultation carried out for the preparation of the Annex XV report indicated that reuse of utility poles is not likely to be possible due to degradation of the wood and damage of the utility pole when removing it from its original location.

SEAC notes that, in the public consultation, information was submitted indicating reuse and secondary use of utility poles in Northern Ireland (comment # 5167). As a consequence, even if it is not a European Member State, SEAC considers this information as an indication that this may also occur in the EEA. However, the absence of information at European level did not allow SEAC to quantify the socio-economic cost in Europe.

3.4.3.2.2. Socio-economic impacts on National Railway Managers (NRIMs)

SEAC considers that, for NRIMs, a restriction banning the secondary use and the reuse by private railway companies would result in the following economic impacts:

- revenue losses from the foregone sales of creosote-treated sleepers that would be reused or subjected to secondary use by other actors in the baseline. However, SEAC notes that dismantled sleepers are generally sold at a very low price and, in some cases, they are even given away for free. Hence the revenue loss is not expected to be significant;
- additional costs associated with the adequate disposal of all creosote-treated sleepers (including transportation cost) that, in the baseline, would have been sold for reuse by private railway companies or for secondary use.

In addition, as other alternative sleepers on the market are currently more expensive, in case the reuse by the original user of creosote-treated sleepers would be banned, as under the most restrictive option (RO1), for NRIMs, there will be significant

- additional costs of substitution (including installation costs) from not being able to reuse in-house and, subsequently, for having to buy and to install new sleepers instead. SEAC notes these additional substitution costs depend on the price difference between the used creosote-treated sleepers and the alternative.

A similar increase in acquisition costs applies in ROs where secondary use by the original user (e.g. as embankment) is banned as the users will have to purchase alternative material which is likely to be more expensive.

SEAC notes that, for the European NRIMs, the size of these costs strictly depends on:

- the current baseline, i.e. whether and to which extent (volumes of sleepers) they currently reuse themselves their own old sleepers or use them for other purposes (secondary use) or sell/donate their dismantled sleepers to be reused by private railways or to be used for secondary application by other parties (incl. the general public);

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- the choice of the restriction option.

SEAC notes that, during the public consultation, the French and the German railways network managers provided comments that illustrate quite well the diversity of the baseline situations for the NRIMs across Europe, hence the different potential size of impacts.

SNCF RESEAU, the French rail network manager (comment # 3797), indicated that, for environmental reasons related to the possibility of extending the service life of wood and for energy saving, they are in favour of reuse of sleepers by the same user, as well as, more in general, of the reuse by any actor. In addition, SNCF RESEAU explains that restricting all secondary use would impede the national railways from secondary in-house use of these sleepers on their own properties, for example in the embankments. SEAC notes that SNCF provided the annual number of wooden sleepers treated with creosote that are deposited, reusable, reused and incinerated in France, as well as some costs information on the price of the sleepers (€40/sleeper).

The Deutsche Bahn (DB Netz AG), the German railway network manager, commented (comment # 3819) that they do not reuse creosote-treated wooden sleepers which are directly disposed of by incineration with energy recovery. As such, for them, the proposed restriction has no influence on their current situation, and hence, the restriction would not have any socio-economic impact on them. Moreover, DB Netz AG underlined that they do not impregnate and do not import creosote-treated sleepers. The German Competent Authority also added (comment # 3948) that in Germany an evaluation of economic efficiency was carried out for plastic sleepers, in comparison to impregnated wooden sleepers. Considering the whole lifecycle costs for plastic sleepers (cost for the materials, installation and maintenance costs, etc.), this assessment showed positive results. Therefore, the German Competent Authority concludes that a substitution of creosote-treated wooden sleepers with plastic sleepers within the German railway infrastructure run by the DB Netz AG seems to be economically feasible. However, the German Competent Authority also added that the situation for private/touristic railway networks in Germany might be different and that no information is available on the expected socio-economic impacts on these companies.

Information received confirms that second-hand sleepers from after 31/12/2002 should formally be handled as hazardous waste, but requests to the Dutch REACH helpdesk indicate that second-hand railway sleepers from before 31/12/2002 are still marketed in the Netherlands.

SEAC cannot conclude on the size of the reduced revenues and additional costs for the NRIMs as information on the number of sleepers reused or used for secondary applications, on the service life, on the disposal costs and on the choice of the alternatives is lacking in the Background Document and it was also not provided during the consultation on the Annex XV dossier.

SEAC notes that losses of revenues and disposal costs incurred by the National Railway Managers in France as well as in other Member States that already have restrictions of the reuse and secondary use cannot be taken into account as costs of the assessed restrictions, as they occur both in the baseline and the restriction scenario. SEAC considers that the NRIMs will incur revenue losses from sleepers that were sold for reuse and for secondary use in the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

baseline, as well as the disposal costs per sleeper in those Member States in which reuse and secondary use is still allowed in the baseline.

SEAC considers that by allowing reuses both by the original user and by other professional re-users (private railways), RO3 will entail minor revenue losses and additional disposal costs for the NRIMs only resulting from the impossibility to sell to general public for secondary applications. Larger revenue losses are to be expected from RO1, RO2 and RO4 where reuse by other professionals is prohibited (RO2 and RO4) or where reuse is completely prohibited (RO1) (see Figure 5 and Table 6).

3.4.3.2.3. Socio-economic impacts on private touristic railway managers

SEAC notes that the costs for the private railway managers strictly depend on whether the reuse by these actors is allowed or not.

On one hand, in restriction options in which the reuse by another actor than the original user is banned (such as RO2 as proposed by the Dossier Submitter but also in RO1 and RO4), the main costs for the private railway managers will be (higher) substitution costs for the acquisition of alternative sleepers, deriving from the impossibility to buy second-hand creosote-treated sleepers. Assuming that the private railway managers are rational actors, SEAC considers that costs will increase as the prices of all other types of sleepers on the market are likely higher. SEAC notes only the price difference should be taken into account to assess the costs of these restriction options. SEAC cannot provide an estimation for the socio-economic impacts on the private railways as the required information on costs per sleepers and on the total number of sleepers reused by private railways in the EEA is not available neither in the Annex XV report nor from submissions to the consultation on the Annex XV report.

In the public consultation on the Annex XV report (comment # 3753), the French National Union of touristic railways (UNECTO) indicated that creosote-treated wood for railway sleepers from the national railway can be reused on all tracks of the railway network including all types of secondary lines of touristic railway networks. UNECTO commented that being able to reuse wood sleepers from the national railway allows touristic railway networks to maintain at a reasonable cost the secondary lines often operated by small entities managed by volunteers. SEAC notes that UNECTO provided some information on the costs for reusing wood sleepers (€3-5 for transport) and the costs for buying new sleepers (up to €30-35/sleeper for approximately 20 000 sleepers per year in France).

As quoted in the previous subsection, the German Competent Authority (comment # 3948), mentioned that in Germany information concerning the economic feasibility of substitution to plastic sleepers for private/touristic railway networks over the whole lifecycle, in terms of costs for the materials, installation and maintenance, etc., is missing while, from the assessment carried out in Germany, the substitution to plastic sleepers seems to be economically feasible for the German NRIM. SEAC agrees with the DE Competent Authority that in Germany and elsewhere in the EEA the economic situation for the private railway managers might be different from that of the NRIMs.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Based on the available information, sleepers newly treated with creosote (still allowed under BPR) are currently cheaper than other types of alternative sleepers. SEAC considers that, in the coming years, both EU NRIMs as well private railways are likely to use these new wooden creosote-treated sleepers as an alternative to reuse of existing sleepers, if the Member State is included in the Lists of Member States where wood treated with creosote may be placed on the market for certain uses in accordance with Commission Implementing Regulation (EU) 2022/1950¹⁰.

SEAC notes that, at least initially, if other types of sleepers are used instead, the increase of costs will likely be significant compared to the baseline scenario. However, SEAC notes that the prices of other types of sleepers (hence the costs of substitution) will likely decrease over time, potentially becoming more affordable in the future.

However, SEAC notes that, by investing in new sleepers, the private railways will reduce and postpone the frequency and number of sleepers to be disposed of (and the associated costs) as a longer service life may be expected for sleepers newly treated with creosote and creosote-related substances. In the long run, this will become a benefit for private railway managers as they would be able to use the sleepers for many more years. In fact, they would save the money necessary to buy more frequently reused sleepers that are indeed cheaper, but that would not last as long and would imply several rounds of disposals. SEAC assumes that the sleepers are disposed of in a similar way as in the case of reused sleepers.

On the other hand, in restriction options (such as RO3 and RO5) that allow the reuses of sleepers both by the original user and by the private railway managers, SEAC notes that the private railway managers (as well as the NRIMs) will not be impacted compared to the baseline as there will be no changes in the current acquisition price of the dismantled sleepers nor on disposal costs that will remain the responsibility of the private railways after the end of the sleepers' service life. Table 6 summarises the categories of costs that are associated with the different provisions for the private railway managers.

SEAC considers that restricting the secondary use by the private railway managers (such as embankments) as in RO1, RO2, RO3 and RO4 will have no major impacts in terms of socio-economic costs as this possibility is probably very limited by the fact that the already reused sleepers might not be in a condition good enough even for subsequent secondary applications.

SEAC further notes that the situations of private/touristic railway companies might be very different in different Member States as there could be private companies that currently do not use at all second-hand creosote treated sleepers (and already use new sleepers of different types) or use a very limited or a very high number of creosote-treated second-hand sleepers. Therefore, depending on their current situation, SEAC notes that the proposed restriction could potentially entail no economic impacts at all, limited or very high costs to the private railway managers. SEAC notes that only one comment was received from private railways (UNECTO from France). Additional comments from other private Railway Managers in different

¹⁰ Source: [Microsoft Word - Creosote-PT8_DraftlistofMSfortreatedwood.docx \(europa.eu\)](#)

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Member States would help SEAC to better understand the diversity of the existing situations and to attempt to assess the costs of the proposed restriction at European level.

3.4.3.2.4. Socio-economic impacts on final users of trains (travellers on national and private railway lines)

SEAC assessed the possible negative impacts on the availability, safety, quality or price of transport services for travellers on the national and the private railway lines.

SEAC doesn't expect any reduction in the availability of trains for the NRIMs as the costs are not significant. Unavailability of transport services is excluded also for the private/touristic railway as their managers would most likely prefer to increase the price (and avoid losing their business) instead of closing down railway lines.

SEAC doesn't expect any decrease in the safety nor on the quality of the transport service neither for users travelling on the NRIMs nor for those travelling on private railways as the alternative sleepers will not be less safe nor of lower quality.

SEAC considers that, under the proposed restriction by the Dossier Submitter (RO2) as well as under the additional ROs assessed by SEAC, no or only minor price increases for users of the national railway lines can be expected as the additional costs on NRIMs will be relatively low and ticket pricing depends on many other technical and economic factors. As indicated above, for people travelling on private/touristic railway lines, SEAC cannot exclude some increase in the price of tickets. Anyway, SEAC considers that, even under the restriction options RO1, RO2 and RO4, significant cost increases are not likely, because investment costs can be recovered over time, hence with a small (but likely permanent) price increase. Moreover, SEAC also considers that a significant increase would discourage travellers from buying tickets.

It has to be noted that travellers of private railway networks that are currently reusing the sleepers from the NRIMs in their own country will not be impacted at all under RO3 and RO5 as the reuse by another actor than the original user in the same country and under the same condition will remain possible, i.e. the baseline will remain unchanged.

These SEAC considerations are summarised in the table below.

Table 4: Potential impacts on travellers on the national or on private railway lines

	Traveller on national railway lines	Traveller on private railway lines
Unavailability of trains	No	No
Lower safety of the transport service	No	No
Lower quality of the transport service	No	No

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Increased price of the tickets	Unlikely minor	or	It cannot be excluded but the increase is not expected to be significant
--------------------------------	-------------------	----	--

SEAC notes that the conclusions above on the impacts on travellers might be challenged by the public consultation.

SEAC considers that by allowing the reuses of sleepers both by the original user and by the private railways, RO3 will have no impacts at all on the travellers as the baseline will remain the same.

3.4.3.2.5. Socio-economic impacts on National electricity Distribution System Operators (NDSOs).

SEAC notes that the Dossier Submitter mainly focuses their socio-economic analysis on sleepers, and not on utility poles. The main reason is that, according to the Dossier Submitter, utility poles can be reused or used for secondary applications very rarely and only if their conditions after being removed still allow it. However, in SEAC's view, even if SEAC agrees that the users of second-hand utility poles will be less affected by a restriction on wood treated with creosote and creosote-related substances, SEAC considers that some considerations could be made, as these poles are still allowed to be treated with creosote by the BPR.

SEAC notes that, during the public consultation, no comments were received on the use, the reuse and the secondary use of electricity poles from European NDSOs. Though Northern Ireland is not any longer part of an EU Member State, given the lack of available EEA-specific information, SEAC considers that the comment (comment # 5167) received during the public consultation from the Northern Ireland Electricity Networks Limited (NIE Networks) might contribute to shed some light on the possible baseline in European countries. NIE indicates that creosote-treated utility poles that are removed from their network are reinstalled (reused) on their own network but in other locations. Even if the current amount of in-house reuse is low, NIE anticipates an increase in the levels of utility pole reuse as they are undertaking a major overhead line network rebuild. NIE also quotes that secondary use of second-hand utility poles by the construction sector exists.

If the situation in other EU countries was similar to the case of NIE, the proposed restriction (RO2) would result in the following economic impacts for National European DSOs:

- additional acquisition costs of new utility poles when not being able to reuse in-house the removed poles as well as revenue losses from not being able to sell them for reuse by private DSOs as utility poles or for secondary uses (mainly by the construction sector). Considering the fact that removed poles might not be in good condition, the fact that currently underground wiring is largely used instead of utility poles and taking into account that there were no reactions at all from European NDSOs during the consultations (those carried out by the Dossier Submitter as well as during the public consultation on the Annex XV), SEAC expects that the total volumes of removed utility poles that are reused or used for secondary applications in EEA should be quite limited.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Hence, the total economic impacts for the European NDSOs are not expected to be significant.

- additional costs associated with the immediate and adequate disposal of all used wood utility poles treated with creosote that could have been sold for reuse by private DSOs or for secondary use by the construction sector or by other actors. SEAC considers that, if reuse by other private electricity distributors exist, only one of the involved two actors needs to dispose the material (either the original user or the re-user). In contrast, if reuse by other professional users is restricted, the re-user may become an original user of freshly creosote-treated utility poles (where still allowed under the BPR) and then both parties need to take care of the disposal of their own creosote-treated material. As highlighted by NIE, SEAC notes that in case hazardous waste disposal facilities are not in the proximity of the location of removal, disposal costs could potentially be significant if poles will have to be transported far away for incineration as hazardous waste.

Since RO2, RO4 and RO5 and the restriction proposed by the Dossier Submitter do not ban the reuse by the original user in the same country and under similar conditions, SEAC notes that there are no additional costs for the original distributor that would be related to the reuse of own articles.

In case the reuse by the original user in the same country and under similar conditions is banned (RO1), as the prices of all other alternative types of utility poles on the market are currently higher, SEAC considers that there might be significant costs of substitution to the national distribution system operators (electricity and telecommunication).

3.4.3.2.6. Socio-economic impacts on private electricity Distribution System Operators (PDSOs)

SEAC notes that even if electricity distribution networks in Europe are majority-owned by the public sector, privately-owned distribution utilities also exist. From the public consultation, no information was gathered on reuse of second-hand utility poles by private Distribution System Operators (not even in the NIE comment). However, SEAC notes that reuse by these operators cannot be fully excluded.

If some reuse by private DSOs exists in the EEA, private electricity distributors would incur significant substitution costs as the alternatives would most likely be more expensive but, at the same time, they will reduce their disposal costs in the future (like for the private railway managers for sleepers). However, SEAC notes that, in economic terms, in the long run, by investing in new utility poles (freshly treated with creosote and creosote-related substances or other types of poles), private DSOs would be able to use the utility poles for many more years hence reducing and postponing the frequency and number of poles to be disposed of (and the associated costs).

SEAC notes that, if reuse by a different actor than the original user exists at all in some Member States, SEAC does not expect that volumes of creosote-treated second-hand utility poles that are reused would be significant. Therefore, SEAC doesn't expect significant

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

economic impacts for RO2 nor for the other restriction options that restrict the reuse by a different user (i.e. RO1 and RO4). SEAC hopes to receive comments during the public consultation by private DSOs that could provide some elements to SEAC to better understand the current baseline.

SEAC considers that by allowing the reuses of utility poles both by the original user and by the current re-users (private DSOs), RO3 will maintain the situation as it is in the baseline without any change in the current acquisition price of utility poles nor on costs for the disposal of the poles that will remain the responsibility of the PDSOs after the end of the poles' service life.

3.4.3.2.7. Socio-economic impacts on electricity users

As for the railway networks, SEAC carried out a qualitative assessment of the possible negative impacts on the availability, safety, quality or price of electricity distribution on the commercial and private users of national and private electricity networks.

As a consequence, SEAC considers that the availability of electricity for the final users will likely not be affected as it depends much more on geopolitical and other legal, political and technical factors that may entail an increase or a decline of different electricity sources (gas, coal, wind, solar, hydroelectric and nuclear), which contribute the most to a modification of the electricity tariffs.

SEAC doesn't expect any reduction in the quality, safety nor reliability of the electricity distribution networks nor additional difficulties in putting in place new electricity grid connections that would affect the electricity users as a result of the restriction proposed by the Dossier Submitter (RO2) as the reuse by the same user in the same country and under similar conditions would be allowed.

SEAC considers that no or only minor tariff increases for users of the national electricity network operators should be expected, as the loss of revenues and the additional disposal costs imposed on national DSOs will be relatively low and electricity pricing depends on many other technical, political and economic factors.

It has to be noted that if some reuse of utility poles exists by private distribution system operators, users of electricity distributed by private DSOs will not be impacted at all under RO3 and RO5 as the reuse by another actor than the original user will remain possible, i.e. the baseline will remain unchanged. This would not be the case under the restriction proposed by the Dossier Submitter (RO2) nor if RO1 and RO4 will be chosen as the most preferred restriction option, as the reuse by another user than the original one (in the same country and under the similar conditions) will not be allowed and some cost increases can be expected. In fact, in this case, SEAC cannot exclude an increase in tariffs by private Distribution System Operators for commercial or private end-users. However, SEAC considers that significant cost increases are not likely, because investment costs can be recovered over time. However, SEAC also notes in case of a significant tariffs increase, electricity being a primary need with a limited elasticity of the demand to prices, end users would not have another choice than to keep buying electricity.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

These SEAC considerations are summarised in the table below.

Table 5: Potential impacts on electricity users of the national or on private Distribution Network Operators

	User of electricity from national distribution system operators	User of electricity from private distribution system operators
Unavailability of electricity	No	No
Lower safety of electricity	No	No
Lower quality of the electricity	No	No
Increased tariff of electricity	Unlikely or minor	It cannot be excluded but the increase is not expected to be significant

SEAC notes that the above SEAC conclusions on the impacts on users of electricity might be challenged by the public consultation.

3.4.3.2.8. Overall costs – final considerations

In general, concerning the costs of a ban on second-hand wood treated with creosote and creosote related substances, SEAC notes that:

- costs associated with the restriction proposed by the Dossier Submitter (RO2), as well as the other restriction options mainly depend on whether the chosen alternatives will become less expensive (and safer) in the future.
- restriction option RO3 that allows reuse by the original or by other professional users limits the costs for the NRIMs or NDSOs to the costs associated to the loss of sales for secondary uses; private railway managers would not incur any additional cost as their reuse is still possible;
- not all costs for the NDSOs, NRIMs and the private railway managers should be considered as impacts caused by a restriction.
 - In the restriction options that ban the reuse by another actor than the original user (such as RO1, RO2 and RO4), SEAC notes that revenue losses for NRIMs and DSOs are distributional impacts as these losses correspond to saved expenses for the private railways or electricity managers; and
 - In the restriction options that ban the reuse by another actor than the original user (such as RO1, RO2 and RO4), costs on NRIMs, DSOs, private railways or on secondary users in countries that already have national restrictions in place on reuse and on secondary use should not be considered because in these countries (such as France) the scenario of introduction of a restriction corresponds to the baseline. Therefore, the impacts on actors in these countries

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

are due to the national provisions and not to a restriction at EU level.

The following table summarises the categories of costs that are associated to the different provisions.

Table 6: Cost categories that are associated to the different provisions. Points a. to e. refer to the building blocks described in chapter 3.4.3.1.

	Restriction options	Cost category
a. Restricting the reuse by the original users (NRIMs and NDSOs)	RO1	<ul style="list-style-type: none"> • additional disposal costs • additional substitution costs for alternative sleepers and utility poles
b. Restricting the reuse by other professional users (private railway networks and PDSOs)	RO1, RO2 and RO4	<ul style="list-style-type: none"> • additional substitution costs for alternative sleepers and utility poles • revenue losses from the foregone sales • additional disposal costs
a. Allowing the reuse by other professional users (private railway networks)	RO3 and RO5	<ul style="list-style-type: none"> • No change in costs compared to the baseline for reuse
b. Restricting the secondary use by original users (NRIMs (such as embankments) and NDSOs (in construction))	RO1, RO2, and RO3	<ul style="list-style-type: none"> • additional disposal costs • additional substitution costs for an alternative for the secondary application
c. Restricting secondary use by the other professional users	RO1, RO2, RO3 and RO4	<ul style="list-style-type: none"> • additional disposal costs • additional substitution costs for an alternative for the secondary application • revenue losses from the foregone sales
d. Restricting the secondary use by the general public	RO1, RO2, RO3, RO4 and RO5	<ul style="list-style-type: none"> • revenue losses from the foregone sales • substitution costs for an alternative for the secondary application • additional disposal costs

These costs per each actor are summarised in the table below.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Table 7: Overview additional costs for original and professional users and the general public of creosote-treated wood

	RO1	RO2	RO3	RO4	RO5
Acquisition costs for alternatives					
NRIMs and NDSOs	Increased cost as secondary use is restricted and reuse of sleepers or utility poles is forbidden for the original user. Costs depend on the chosen alternative.	None as reuse by the original user is allowed.			
Private railway companies and PDSOs	Increased cost as reuse of sleepers or utility poles is banned for re-users other than the original one. Costs depend on the chosen alternative.	No changes as reuse of sleepers and utility poles remains allowed for other actors than the original one.	Increased cost as reuse of sleepers or utility poles is forbidden to re-users other than the original one. Costs depend on the chosen alternative.	No changes as reuse of sleepers and utility poles remains allowed for other actors than the original one.	
General public	Increased costs for buying new articles as secondary use by the general public is restricted.				
Revenues from resale of the removed sleepers and utility poles					

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

NRIMs and NDSOs	Significant loss of revenue as sleepers and utility poles are not sold anymore.		Some loss of revenue as sleepers and utility poles are not sold anymore to the general public but can still be sold to other professional users for reuse.	Significant loss of revenue as sleepers and utility poles are not sold anymore to the general public nor to other re-users.	Some loss of revenue as sleepers and utility poles are not sold anymore to the general public but can still be sold to other professional users for reuse.
End-of-life disposal costs					
NRIMs and NDSOs	Increase as a ban on the reuse and secondary use by the original user and by other actors implies that the original user has to dispose of all removed sleepers and utility poles.	Increase as a ban on the reuse and secondary use by other actors than the original user implies that the original user has to dispose of all removed sleepers and utility poles that cannot be reused by the original user.	Minor increase as creosote-treated wood can still be reused by the original user and by other professional users but the original user has to dispose of sleepers and utility poles that were previously sold to the general public.	Increase as a ban on the reuse and secondary use by other actors than the original user implies that the original user has to dispose of all removed sleepers and utility poles that cannot be reused or secondary used by the original user.	Minor increase as creosote-treated wood can still be reused by the original user and by other professional users but the original user has to dispose of sleepers and utility poles that were previously sold to the general public.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

<p>Private railway companies and PDSOs</p>	<p>Similar costs compared to the baseline if the alternative to reuse will be freshly creosote-treated wood. Disposal costs for re-users may decrease in the case of other alternatives.</p>		<p>Minor increase as creosote-treated wood can still be reused by the same user and by other users than the original one but the user has to dispose of sleepers and poles that were previously sold to the general public.</p>	<p>Similar costs compared to the baseline if the alternative to reuse will be freshly creosote-treated wood. Disposal costs for re-users may decrease in the case of other alternatives.</p>	<p>Minor increase as creosote-treated wood can still be reused by the same user and by other users than the original one but the user has to dispose of sleepers and poles that were previously sold to the general public.</p>
<p>TOTAL COST</p>	<p>Highest costs, as RO1 is a total ban.</p>	<p>Costs lower than RO1, as all reuses except the reuse by the original user is banned.</p>	<p>Costs lower than RO1, RO2 and RO4, as reuse by other professionals is still allowed.</p>	<p>Costs lower than RO1 and RO2, as reuse and secondary use by the original user is still allowed. Costs higher than RO3, as reuse by other professionals is banned.</p>	<p>Least costs, as only secondary use by the general public is restricted.</p>

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

3.4.3.3. Benefits

Summary of Dossier Submitter's assessment:

Creosote and related substances are classified as PBT, vPvB and non-threshold CMR, and are thus considered to impose an unacceptable risk, taking into account both the impacts of human health and the environment. Based on these considerations, the Dossier Submitter concludes that exposure and releases should be reduced as far as reasonably possible.

The Dossier Submitter could not quantify the benefits of reduced environmental and health impacts in monetary terms. Based on the Dossier Submitter's qualitative analysis, it is considered that the risk reduction capacities of the two ROs are relatively comparable and positive in relation to the baseline scenario.

It is concluded that the risk reduction potential mainly arises from the elimination of secondary uses, which lead to exposure of the general public and less trained professionals (e.g. contractors operating in the removal of wood). Additionally, the prevention of trade and cross-border movement of treated articles is considered to decrease the likelihood of uncontrolled exposure while increasing the likelihood of adequate disposal. These benefits equivalently apply to RO1 and RO2.

The reduction of article reuse itself is not expected to have a great impact on risk prevention as the exposure of relevant workers (e.g. during stock keeping, transport, installation and maintenance) is considered to remain if reused sleepers are substituted by newly treated sleepers. Releases to the environment are likewise considered to continue. The Dossier Submitter discusses if exposure and releases may even increase if freshly creosote-treated articles are chosen as alternatives to reuse. If safer alternatives are chosen, the stricter ban of reuse in RO1 could lead to higher risk reduction. However, the Dossier Submitter notes that, under the assumption that newly treated wood will be a relevant alternative to reuse, RO1 is expected to increase the consumption of newly creosote-treated wood more than RO2. As a result, RO2 is considered to be more justified.

SEAC conclusion(s):

SEAC notes that, concerning the assessment of the hazards of creosote and creosote-related substances carried out in the context of the BPR, RAC concluded that there is an unacceptable risk to the environment and human health associated with the exposure to these PBT, vPvB and non-threshold CMR substances. SEAC concurs with the Dossier Submitter and RAC on the need to reduce releases and exposure as far as reasonably possible.

Although some uncertainties persist in the absence of quantitative information, SEAC finds the qualitative approach adopted by the Dossier Submitter to be fit for the purpose of describing the benefits and verifying the positive outcome for human health and the environment.

SEAC considers that most significant benefits to the environment and human health (directly or indirectly via the environment) result from **prohibiting secondary uses by the general**

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

public. In addition to this, SEAC finds that restricting reuses by professional users (both original users and other professional users) can have negative effects on environmental benefits as long as the first placing on the market of creosote-treated wood is still allowed under the BPR because it gives re-users the opportunity to substitute the reuse of treated wood with freshly creosote-treated wood.

SEAC considers that a combination of restricting secondary uses and allowing reuses by professional users under controlled conditions may secure the highest benefits in terms of human health and environmental protection. This allows at the same time to extend the service life of the treated wood and avoid the need to source and use additional energy and raw materials (wood or other) for the production of alternatives and also for the disposal of sleepers and utility poles.

Key elements underpinning the SEAC conclusion(s):

Approach to the Dossier Submitter's analysis

SEAC notes that the Dossier Submitter was not able to quantify the environmental and human health benefits of the proposed restriction and only discusses benefits qualitatively. More specifically, this approach seems to rely on the comparison of arguments and the weight of evidence in favour and against a restriction. A qualitative evaluation of benefits is not uncommon in the context of REACH restrictions and, although it was not feasible to approximate the restriction benefits through a quantification of the reduction in exposure and releases, SEAC finds the selected approach acceptable.

SEAC notes that creosote and creosote-related substances are classified as PBT, vPvB and non-threshold CMR, and that the previous assessment in the context of the BPR has considered these substances to impose an unacceptable risk to human health and the environment. SEAC notes RAC's risk-related conclusions and supports the fact that, based on these considerations, the Dossier Submitter emphasizes the need to reduce exposure and releases as far as reasonably possible.

Human health benefits

SEAC notes that, according to RAC, due to the *"high carcinogenic potency of PAHs only a very small daily exposure is needed to cause an unacceptable cancer risk"*. As a consequence, SEAC agrees that the contribution of the proposed restriction to the reduction of human exposure to creosote and creosote-related substances in treated wood generates human health benefits.

SEAC underlines that, as the general public is considered the population most at risk, avoiding the exposure of this population via the ban of the secondary use by the general public entails direct high human health benefits and is therefore included in all restriction options assessed.

SEAC notes that human health benefits also result indirectly (man via the environment) from reducing environmental contamination due to leaching of creosote from the treated wood articles in use or improper disposal of the wood treated with creosote and creosote related substances.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Environmental benefits

As creosote and creosote-related substances are PBT and/or vPvB, SEAC notes RAC's conclusions that the proposed restriction could contribute to reduce risks to the environment (and to human health via the environment) from creosote and creosote-related substances applied to the treated wood.

On one hand, SEAC considers that, by restricting reuse and secondary use, the benefits to the environment come directly from reducing soil and water contamination.

On the other hand, it has to be noted that the overall environmental benefits could be reduced if more wood, natural resources and energy were needed for producing the alternative sleepers or utility poles. SEAC notes that this would happen not only in case new wood treated with creosote is used but also if other types of alternative sleepers (including copper-treated wooden sleepers, plastic sleepers and concrete sleepers, etc.) or utility poles will require additional use of natural resources and energy. Wooden sleepers treated with copper compounds may also lead to copper releases into the environment that may have negative impacts on the environment and on human health via the environment.

SEAC notes that the way disposal is carried out also has a major impact on the environment. If the old treated wood is not disposed of as hazardous waste, there will be negative impacts on the environment as well as on human health via the environment. For instance, in case the old treated wood is (illegally) landfilled, the leaching of creosote and creosote-related substances will contaminate the soil and the groundwater. SEAC also notes that the requirements on the disposal are set under the WFD.

Approach to SEAC's further assessment of benefits

As explained in section 3.4.3.1., SEAC assesses the five building blocks of the restriction analysed by the Dossier Submitter, which are then combined into different additional 'restriction options' for ease of presentation (see Figure 5).

SEAC considers that, by systematically disaggregating and isolating the effects of the different building blocks in the restriction options, it is easier to assess the benefits to human health and the environment of the different restriction options. This structure could help to identify the restriction option that combines the best balance between economic costs and benefits to human health and the environment. The indication of relative benefit size is approximated with an ordinal scale. It should be considered that (++) and (+++) only indicated which benefit is considered higher in comparison and that the scale does not make conclusions about the total magnitude. Increases may also be non-linear. A neutral benefit is represented by (=) and a negative benefit by (-).

3.4.3.3.1. Benefit of restricting reuse by the original user (RO1 only)

Among all five options assessed, only RO1 as proposed by the Dossier Submitter prohibits the reuse by the original user. SEAC considers that restricting the reuse of creosote-treated wood by the original user could potentially entail the following positive and negative impacts:

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- **HH =)**¹¹ compared to the baseline if the alternative is fresh treatment (the same level of training and PPE utilization and effectiveness is assumed for reuse and for use of freshly creosote-treated wood and, thus, the same exposure level is assumed)
- **ENV -)** compared to the baseline if the alternative is fresh treatment (more leaching from freshly treated wood than from reused wood)
- **HH and ENV ++)** compared to the baseline if the alternative is safer (however, it is unclear how soon safer alternatives will be considered competitive enough to render the use of freshly creosote-treated wood unattractive; when this point is reached, exposure and leaching of creosote can be eliminated and a clear benefit compared to the reuse of treated wood will be accomplished)

Additional considerations and explanations:

- SEAC notes RAC's conclusions on the risks to the environment and to human health (including human health via the environment).
- The health of the professional workers associated with the original user entity could be benefited by a restriction if they were not sufficiently trained before on how to handle treated articles and if they do not wear the necessary PPEs in the baseline scenario. However, in the context of the BPR and other existing regulations, **the need to utilize risk mitigation** measures for the use of creosote or hazardous substances in general is discussed, and it may be assumed that original users make adequate use of training and PPE.
- The benefits for human health thus **depend on whether the chosen alternative is safer**. SEAC notes that, after the recent re-approval of the original use of creosote for the treatment of wood for railway sleepers and utility poles in the context of the BPR, restricting all reuse may lead to a replacement of reuse of old creosote-treated wood with freshly creosote-treated wood (if the relevant country has signed on to the list of EU Member States that continue to allow the first use).
- Under the assumptions that training and adequate PPE are used by original users and that fresh creosote remains one of the technically and economically most attractive substitutes as long as the BPR allows it, SEAC agrees that the human exposure associated with the first handling of freshly creosote-treated wooden articles could be similar to the exposure from the reuse by the original user, so it **does not appear coherent that the health benefits would be higher if the reuse by the original user were to be restricted**.
- Similar to the context of health benefits, the protection of the environment (and consequently human health via the environment) could be considered to be increased by a restriction of reuse if the chosen alternative is safer. However, as newly creosote-treated articles remain available in numerous Member States and seem to be one of the technically and economically most attractive substitutes, banning the reuse by the original user may increase the use of fresh creosote treatment and thus lead to **even higher releases to the environment**. In this context, SEAC refers to RAC's conclusion that limiting reuse of old sleepers may lead to more use of newly creosote-

¹¹ This means the human health benefit is considered to be neutral.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- treated sleepers, which contain more creosote available for leakage than old sleepers.
- Restricting reuse, and thus reducing the service life of sleepers, may have additional negative environmental impacts related to the **increased use of resources** (e.g. wood), but detailed information is not available to SEAC. The occurrence of **transportation** of sleepers and a potential shift of sleepers to new (previously unexposed) locations is not considered to be impacted by the restriction of reuse as newly creosote-treated wood is available and other alternatives also require transport.
 - Likewise, it is likely that adequate **disposal** would be better guaranteed than in the case of the other options (RO2, RO3, RO4, RO5), in this context, the entity responsible for disposal is the original user in any case.

Taking into account the available information, SEAC considers that restricting reuse by the original user (only applicable in RO1) is unlikely to result in benefits to human health and is likely to result in additional negative environmental impacts. In all other restriction options, the original user is allowed to reuse railway sleepers and/or utility poles for electricity or telecommunication in the same Member State and under similar conditions as defined by the BPR. The Dossier Submitter indicated that this reuse will be confined to railway sleepers mainly, and this was substantiated in the dossier.

3.4.3.3.2. Benefit of restricting the reuse by other professional users that are not the original user (RO1, RO2 and RO4)

Three of five assessed options prohibit the reuse by professional users other than the original user. SEAC considers that restricting the reuse of creosote-treated wood by other professional users could potentially entail the following positive and negative impacts:

- **HH +)** compared to the baseline even if the alternative is fresh treatment. The Dossier Submitter argues that, in the baseline, there is a risk of inadequate training and use of PPE for professional users other than the original user if they acquire second-hand treated wood. In contrast to that, the risk-related considerations of the BPR would apply if a former re-user becomes an original user of freshly treated wood and lower exposure may be assumed according to the Dossier Submitter. However, SEAC notes that all professional users should in theory be obliged to implement adequate occupational safety measures independently of whether their use is subject to the BPR or not. Hence, the restriction benefit may in this case be **HH =)** (i.e. as in the previous section) if worker protection is already correctly enforced in the baseline.
- **ENV -)** compared to the baseline if the alternative is fresh treatment (more leaching from freshly treated wood than from reused wood)
- **HH and ENV ++)** compared to the baseline if the alternative is safer (however, it is unclear how soon safer alternatives will be considered competitive enough to render the use of freshly creosote-treated wood unattractive; when this point is reached, exposure and leaching of creosote can be eliminated and a clear benefit compared to the reuse of treated wood will be accomplished)

Additional considerations and explanations:

- SEAC notes RAC's conclusions on the risks to the environment and to human health

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

(including human health via the environment). RAC considers that an advantage of limiting reuse to the original user in the same country and under similar conditions as defined by the BPR is that **trade of old creosote-treated wood between countries** can be stopped. Thus, an increased control of the old creosote-treated wood is obtained. This increased control is considered to reduce the possibilities for any other user to buy old creosote-treated wood via the internet and thus it may also indirectly reduce risks **to the general public** who might seek to buy old creosote-treated wood. However, even while noting this, SEAC considers the option of allowing reuse by other professional users under the assumption that original users can be required to keep the necessary documentation proving to enforcement authorities that they only sold treated wood to other professional companies in the same country. Therefore, the option of allowing reuse by other professional users in the same country and under similar conditions as applicable under the BPR is considered to be **conditional on the ability to control the trade** and inhibit distribution to the general public. If this condition cannot be enforced, SEAC agrees with the Dossier Submitter that the option of allowing reuse by other professional users appears less favourable due to continued negative impacts on the health of the general public.

- Aside from the question of controlled trade, SEAC finds that the notion of creating a positive health benefit through a restriction of reuse by other professional users is based on the assumption defended by the Dossier Submitter that professional workers of other railway companies may not be adequately protected through **training and PPE**. On the one hand, SEAC agrees that banning reuse by other users would force them to become original users if they want to continue to use creosote-treated wood and, thus, they would be confronted with the considerations of risk mitigation measures linked to the BPR context. On the other hand, SEAC also took into account that similar risk mitigation measures as mentioned in the BPR context could potentially be enforced by other occupational safety regulations or as an **additional condition** to the reuse by other professional users.
- SEAC notes that a derogation conditional on proper buyer verification and the use of adequate risk management measures could achieve **similar health benefits** as a ban of reuse by other professional users, **while simultaneously increasing environmental benefits relative to RO2** if the alternative is fresh treatment. This is because there would be less contamination (via leaching) to the environment in the case of reuse compared to the alternative use of fresh creosote treatment. On this point, SEAC notes that RAC confirms that *"some railway companies, previously depending on buying cheap, old creosote-treated wood for reuse now need to buy new creosote-treated wood. Choosing new creosote-treated wood is possible according to the BPR if the Member State is accepting the use, which potentially would increase environmental releases as newly treated wood is expected to release more creosote than old wood, thus increasing the risk to the environment and possibly to humans via the environment for PAHs. There is, however, no risk expected to workers as the BPR stipulates how workers are needed to protect themselves while using the wood."* The comparative higher benefit of allowing reuse by other professional users under the mentioned conditions (compared to RO2 with a ban of reuse by other professional users) is, however, not applicable if the chosen alternative is safer. In this case a complete ban of reuse by anyone would maximize worker and environmental benefits.
- The Dossier Submitter assumes that, as management of hazardous waste is

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

expensive, limited economic and financial means may incentivise re-users to seek a cheaper **disposal** solution (e.g. illegal landfilling, which would lead to higher exposure of the environment). The Dossier Submitter thus fears a higher risk of inadequate disposal if not the original user is made responsible for disposal. SEAC questions this effect as the WFD will equally apply to any user and a potential evasion of this requirement by economically weaker actors may be considered an enforcement problem. It may be considered that enforcement authorities can monitor the adequacy of disposal methods used by other professional users (e.g. through disposal documentation). Actors that cannot (financially) ensure the disposal requirement set by the WFD may in either case need to opt for cheaper, less high performing alternatives as the same requirement will apply if they become original users of freshly treated wood. This could mean that, in the disposal context, there is not such a clear advantage of banning reuse by other professional users (and thus limiting reuse only to the primary user as proposed in RO2).

- Restricting reuse, and thus reducing of the service life of sleepers, may have additional negative environmental impacts related to the increased **use of resources** (e.g. wood), but detailed information is not available to SEAC. The occurrence of transportation of sleepers and a potential shift of sleepers to new (previously unexposed) locations is not considered to be impacted by the restriction of reuse as newly creosote-treated wood is available and other alternatives also require transport.

SEAC considers that, compared to the current baseline situation, there seems to be a benefit of restricting reuse by other professional users, but SEAC suggests that a more detailed consideration of the potential benefit of additional conditions and other options is relevant to assess. This reasoning takes into account the dependence of benefits on the choice of alternatives. As mentioned in the context of the alternative assessment, re-users are likely to have a choice between freshly creosote-treated wood and other safer alternatives (chemical and non-chemical options). SEAC notes that for technical and for economic reasons the use of wood freshly treated with creosote is currently and will probably remain one of the likely choices as it is still allowed in the vast majority of EU countries. In fact, except for Cyprus, Greece, Malta and the Netherlands, all 27 EU countries have signed on to the ECHA list of Member States that continue to allow the use of creosote for treatment of railway sleepers. The corresponding list for utility poles is shorter, but the reuse of utility poles is expected to be rarer compared to the reuse of sleepers. SEAC agrees with the Dossier Submitter and RAC that the choice of new wood treated with creosote might increase the risks to the environment compared to the baseline. SEAC notes the ongoing development and testing efforts for safer alternatives (incl. first positive results) and considers that, in the long term, both economic and environmental and health benefits may lead to complete abandoning of creosote. In the meantime, SEAC considers that conditions for re-users may help to safeguard human health if the reuse by other professional users than the original user would be allowed. SEAC notes that if conditions could indeed leave the business-to-business market existing while inhibiting the business-to-consumer market, under the mentioned conditions, the exchanges between the national railway managers and private railway managers may be considered less risky and more beneficial for the environment (and man via the environment).

Both RO3 and RO5 allow reuse by other professional users in the same country and under similar conditions. The difference between these two options is that, in RO3, secondary uses by the original user and other professional users are banned while in RO5 it is allowed.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

SEAC considers that, in case reuse by other professional users is allowed, RAC proposes to introduce a permanent labelling requirement (e.g., in the form of engraved steel plates) on each old creosote treated wood in order to increase the control and possibilities to follow what happens with the old creosote treated wood. SEAC concurs with RAC that, in such case, permanent labelling would be useful.

3.4.3.3. Benefit of restricting the secondary use by the original user in the same Member State (RO1, RO2 and RO3)

Three of five assessed options prohibit the secondary use by the original user. During the consultation on the Annex XV report, a stakeholder commented on the advantages of the secondary use of creosote-treated sleepers by the original user for applications, such as railway embankments. The idea was that the original user (a national railway manager) would still be able to use sleepers for other purposes in the same country. SEAC is lacking detailed information on how frequently secondary uses as embankments occur in the baseline situation. Based on the total amount of related comments received in the third-party consultation, SEAC expects that the implementation of secondary uses of creosote-treated railway sleepers by the original user is not very widely spread. SEAC considers that restricting the secondary use of creosote-treated wood by the original user could potentially entail the following positive impacts:

- **HH ++**) compared to the baseline (fresh treatment is not an option here; alternatives are assumed to be safer and creosote-related exposure would be eliminated)
- **ENV ++**) compared to the baseline (fresh treatment not an option here; alternatives are assumed to be safer and creosote-related leaching would be eliminated)
- **positive (+) BPR alignment benefit** compared to the baseline (secondary use goes against BPR conclusions finding suitable alternatives for uses other than railway sleepers and utility poles)

Additional considerations and explanations:

- SEAC notes that the worker risk related to secondary uses by the original user may be relatively lower than for secondary uses implemented by the general public. However, this does not automatically mean that the remaining risk is justified in comparison to the alternative scenario.
- A derogation of secondary uses (even if conditional on training and PPE) could potentially decrease worker and environmental benefit **compared to the baseline**. This is because a share of secondary uses is already restricted in the baseline (by entry 31) and, if this would be reversed, currently existing benefits to human health and the environment could be lost again.
- A derogation of secondary uses (even if conditional on training and PPE) would also decrease worker and environmental benefit **compared to the Dossier Submitter's proposal** of banning all secondary uses because conditions for training and PPE are likely not able to reduce the remaining risk of secondary uses as much as refraining from secondary uses would reduce the risk. It should be noted that the situation was more complex in the context of reuse, where the alternative of freshly treated wood was possible and was expected to have own disadvantages (increasing environmental

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

releases of creosote). In this case, safer alternatives have been confirmed to be available in the context of the BPR and, thus, there seem to be no benefits to human health or the environment to be gained from derogating secondary uses.

- The extension of the service life of creosote-treated wood may seem like a positive impact of secondary uses for a **circular economy**, however, it is clear that this is traded off against higher exposure of humans and the environment. The alternative to secondary use would be the adequate disposal of the treated wood. In any case, SEAC notes that detailed information on additional resource use is not available to SEAC. The occurrence of **transportation** of material is not considered to be impacted by the restriction as other alternatives also require transport.

The option of derogating secondary uses by the original user was not assessed in detail by the Dossier Submitter and RAC; hence, SEAC's evaluation of this option only allows quite general conclusions on benefits to the environment and to human health (including human health via the environment). Yet, SEAC finds the available arguments to strengthen the use of existing safer alternatives.

3.4.3.3.4. Benefit of restricting secondary uses of creosote treated wood by other professional users (RO1, RO2, O3, O4)

Four out of five assessed options prohibit the secondary use by other professional users (different user than the original user). SEAC considers that restricting the secondary use of creosote-treated wood by other professional users could potentially entail the following positive impacts:

- **HH +++**) compared to the baseline (fresh treatment not an option here; alternatives are assumed to be safer and creosote-related handling of treated article would be eliminated). The Dossier Submitter argues that, in the baseline, there is a risk of inadequate training and use of PPE for professional users other than the original user if they acquire second-hand treated wood. However, SEAC notes that all professional users should in theory be obliged to implement adequate occupational safety measures independently of whether their use is subject to the BPR or not. Hence, the restriction benefit may in this case be HH ++ (i.e. as in the previous section) if worker protection is already correctly enforced in the baseline.
- **ENV ++**) compared to the baseline (fresh treatment not an option here; alternatives are assumed to be safer and creosote-related leaching would be eliminated)
- **positive (+) BPR alignment benefit** compared to the baseline (secondary use goes against BPR conclusions finding suitable alternatives for uses other than railway sleepers and utility poles)

Additional considerations and explanations:

- As explained in the context of the previous section, a derogation of secondary uses (even if conditional on training and PPE) could potentially decrease worker and environmental benefit both compared to the baseline and compared to the Dossier Submitter's proposal of banning all secondary uses.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Based on the conclusions from the previous section, this option has not been assessed further.

3.4.3.3.5. Benefit of restricting secondary uses of creosote treated wood by the general public (all restriction options)

All assessed options prohibit the secondary use by the general public. The general public is considered to be most vulnerable to the risk associated with creosote and related substances because the exposed people may be unaware or unable to protect themselves. Thus, this population is considered to be most at risk and all restriction options assessed aim to ban secondary uses of creosote-treated wood by the general public. SEAC considers that restricting the secondary use of creosote-treated wood by the general public could potentially entail the following positive impacts:

- **HH ++++) compared to the baseline (fresh treatment not an option here, alternatives are assumed to be safer, related handling of treated articles is eliminated, likely no training and PPE in baseline)**
- **ENV ++)** compared to the baseline (fresh treatment not an option here, alternatives are assumed to be safer, related leaching is eliminated)
- **positive +) BPR alignment benefit** compared to the baseline (secondary use goes against BPR conclusions on alternatives for these uses)

Additional considerations and explanations:

- SEAC notes that RAC considers that if "*an increased control of the old creosote-treated wood is obtained, it will reduce the possibilities for any user to buy old creosote-treated wood via the internet, which reduces risks to the general population (mainly to carcinogenic PAHs) possibly buying the old creosote-treated wood.*" SEAC agrees that **access of the general population** to second-hand articles treated with creosote must be prevented not only to avoid environmental and health impacts related to the first case of secondary use, but also to prevent **further uncontrollable and unmonitorable distribution** to other members of the general public.
- In the context of the BPR, the first placing on the market and use of creosote-treated wood for uses other than railway sleepers and utility poles has already been excluded. This is based on the finding of **availability of suitable alternatives**. SEAC agrees with the Dossier Submitter that secondary uses of creosote-treated articles cannot be justified in that context.
- SEAC notes that shortening of the service life of a sleeper and substitution with alternatives may imply environmental impacts related to the **additional use of natural resources and energy**, but detailed information is not available to SEAC. The occurrence of **transportation** of material is not considered to be impacted by the restriction as other alternatives also require transport.
- Another important benefit of the restriction of secondary uses by the general public is expected to be the increased likelihood of adequate **disposal** of creosote-treated wood as hazardous waste at the end of the service life because qualified professional users rather than untrained members of the general public will be responsible for disposal. This will lead to lower exposure of the environment and man via the environment.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Based on the clear benefits of restricting secondary uses to the general public, no restriction option has been assessed that would allow this kind of secondary use.

3.4.3.3.6. Some final considerations on benefits

In conclusion, in SEAC view, the following considerations should be taken into account when assessing the benefits of the different restriction options:

- A quantitative evaluation of benefits was not possible.
- All restriction options entail, to different extents, some environmental and human health benefits but also some negative environmental impacts and indirect human health impacts via the environment.
- The benefits associated with the ban of reuse by the original user and other professional users are dependent on whether the chosen alternative is safer for human health and the environment. Based on SEAC's evaluation of the analysis of alternatives, the answer to this question remains uncertain (see uncertainty section). However, it is certain that numerous Member States will continue to have access to fresh creosote treatment for railway sleepers and utility poles as long as the BPR re-approval is in place. According to the Dossier Submitter, fresh creosote treatment remains an attractive alternative to reuse due to considerations of technical and economic feasibility. The benefits of banning reuse both by the original user and by other professional users thus seem to be limited as long as the use of freshly creosote-treated wood is the most likely alternative.
- SEAC considers that the comparatively higher benefits of allowing reuse by other professional users as opposed to banning it are not only dependent on the choice of alternative (as mentioned above) but also on the definition of several conditions for reuse by professional users:
 - Only as long as the first placing on the market and use is allowed in the context of the BPR;
 - Only under similar conditions for placing on the market of treated articles as defined in the context of the BPR;
 - Only under similar risk management measures (also called risk mitigation measures) as defined in the context of the BPR;
 - Only in the same Member State where the original use took place;
 - Only under the condition that control over the business-to-business trade between professional users can be enforced to prevent that members of the general public can access creosote-treated wood for further use.
- Banning secondary uses by the general public is clearly the provision that implies the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

most substantial benefits.

- The benefits of banning other secondary uses (by the original user or other professional users) seem positive and relatively certain.

Under these circumstances, SEAC considers that RO3 is considered to be the restriction option with the highest relative benefits.

The following table provides a short summary of SEAC's assessment of benefits.

Table 8: Comparison of benefits of restricting and derogation conditions for different restriction options

	Ban of reuse		Ban of secondary use			Condition of appropriate risk mitigation measures for other professional users and controlled trade
	by original user	by other professional user	by original user	by other professional user	by general public	
Most likely alternative	fresh creosote	fresh creosote	safer alternative	safer alternative	safer alternative	
HH benefits	(=)	(+/*)	(++)	(+++/**)	(++++)	(+/*)
ENV benefits	(-)	(-)	(++)	(++)	(++)	(=)
RO1	Yes	Yes	Yes	Yes	Yes	No
RO2	No	Yes	Yes	Yes	Yes	No
RO3	No	No	Yes	Yes	Yes	Yes
RO4	No	Yes	No	Yes	Yes	No
RO5	No	No	No	No	Yes	Yes

Notes to Table 8:

Note 1. The indication of relative benefit size is approximated with an ordinal scale. It should be considered that (++) and (+++) only indicated which benefit is considered higher in comparison to each other and that the scale does not make conclusions about the total magnitude. Increases may also be non-linear. A neutral benefit is represented by (=), a positive benefit by (+), and a negative benefit by (-).

Note 2. Yes = ban, No = no ban.

Note 3. The asterisk (*) signals that the conclusion about benefits could potentially be less positive if the assumption by the Dossier Submitter on lower health protection of other professional workers in the baseline is rejected based on the consideration that general and enforceable occupational safety rules apply even in the absence of BPR coverage.

The analysis confirms that most significant benefits can be achieved by preventing the use by the general public. This is applied in all five ROs. Banning the secondary use by the original user and other professional users further generates benefits because safer alternatives have been found to be available by the BPR assessment and because the secondary use of creosote-

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

treated sleepers would result in leaching of creosote into the environment which can be prevented by switching to the available safer alternatives. As indicated in Table 8, RO4 and RO5 still allow secondary uses, therefore, SEAC considers these two options less favourable in terms of benefits. RO1, RO2 and RO3 all prohibit secondary use. RO1 also prohibits reuse by the original user and other professional users, and benefits can be considered limited or even negative in case newly creosote-treated wood is the preferred alternative. When comparing the options with higher benefits, SEAC considers the option of banning reuse by other professional users (RO2) against the option of imposing a condition that other professional users can reuse sleepers only with appropriate risk management measures and under the assumption that it is possible to enforce the ban on trade to the general public (RO3). Between these two ROs, the comparative difference in the health benefits is zero as long as fresh creosote is the most likely alternative. At the same time RO3 may be expected to have higher environmental benefits in this context as there would be less leaching of creosote from reused sleepers into the environment than from freshly treated sleepers.

DRAFT

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

The following table provides a long summary of SEAC's assessment of benefits.

Table 9: Overview of the human health (HH), environmental (ENV) and man via environment (MvE) benefits for original and professional users of creosote-treated wood

	RO1	RO2	RO3	RO4	RO5
Human health benefits					
General public (main population at risk)	HH +++++)	HH +++++)	HH +++++)	HH +++++)	HH +++++)
Professionals of the original user	<p>Unclear, depends on alternative.</p> <p>As reuse and secondary use by the original user is banned there will be:</p> <p>HH -) if the alternative is less safe</p> <p>HH +) if the alternative is safer and these professionals were not protected</p>	<p>HH =) if they are currently exposed they remain exposed while if they are currently protected they remain protected</p> <p>As professional of the original users can't use anymore the sleepers and poles for secondary applications, there will be:</p> <p>HH -) if the professionals are not protected during the secondary application and if the</p>	<p>HH =) if professional of the original are currently exposed they remain exposed while if they are currently protected they remain protected</p> <p>As professional of the original users can't use anymore the sleepers and poles for secondary applications, there will be:</p> <p>HH -) if the professionals are not protected during the secondary application and if the</p>	<p>HH =) as both reuse and secondary use by the original user is allowed so the situation remains the same as in the baseline</p>	

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

	RO1	RO2	RO3	RO4	RO5
		alternative is less safe HH +) if the professionals are not exposed during the secondary application if the alternative is safer and these professionals were not protected	alternative is less safe HH +) if the professionals are not exposed during the secondary application if the alternative is safer and these professionals were not protected		
Professionals of the private railways and PDSOs	HH +) only if these professionals are exposed in the baseline HH -) if the alternative is less safe HH +) if the alternative safer		HH =) if professional workers are protected in the baseline HH +) if these professionals are exposed in the baseline	HH +) if these professionals are exposed in the baseline HH -) if the alternative is less safe	HH =) as if professional workers can still reuse the sleepers and poles so if they are currently exposed they remain exposed while if they are currently protected they remain protected
Environmental impacts					
Use of natural resources and energy					
	ENV - - - -) as the full ban entails the need to substitute all removed sleepers and poles with	ENV - - -) banning the reuse by other professional users entails the need to	ENV - -) allowing the reuse by the original user and other professional users	ENV - - -) banning the reuse and secondary use by other professional users entails the need to	

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
 CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

	RO1	RO2	RO3	RO4	RO5
	<p>new alternative that have to be produced by using materials and energy</p> <p>The amount of resources to be used depends on the alternative.</p>	<p>substitute the removed sleepers and poles with new alternative that have to be produced by using materials and energy</p> <p>The amount of resources to be used depends on the alternative</p>	<p>avoids the use of new alternative sleepers and poles that have to be produced by using materials and energy</p>	<p>substitute the removed sleepers and poles with new alternative that have to be produced by using materials and energy</p> <p>The amount of resources to be used depends on the alternative</p>	
Extension of the service life	ENV - - -) as the full ban of reuse and secondary use entails immediate disposal of all dismantled creosote treated sleepers and poles	ENV - -) as the ban of reuse by other professional actors and of the secondary use entails immediate disposal of all dismantled creosote treated sleepers and poles	ENV + +) as allowing reuse by the original user and by other professional actors extends the service life of the creosote treated wood	ENV +) as allowing reuse and the secondary use by the original user extends the service life of the creosote treated wood	ENV + + +) as allowing reuse by the original user and by other professional actors and secondary use by all actors entails the extension of the service life of the creosote treated wood
Environmental contamination from the use of the alternative	ENV -) if the alternative to reuses is wood freshly treated with creosote, which leads to higher leakage		ENV -) if the alternative for reuse by another user is wood freshly treated with creosote, which leads to higher leakage	ENV -) if the alternative to reuse is wood freshly treated with creosote, which leads to higher leakage	
Environmental contamination from improper disposal of the dismantled creosote-	ENV and HH MvE +) if the original user properly dispose of the wood treated with creosote		ENV and HH MvE +) if the reuser properly dispose of the wood	ENV and HH MvE +) if the original user properly dispose of the wood treated with	ENV and HH MvE =) as the professional disposal is done by the same actors as in the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

	RO1	RO2	RO3	RO4	RO5
treated sleepers and poles			treated with creosote.	creosote	baseline

The descriptions related to the different ROs in Table 9 have been composed of the different provisions (building blocks) described in the chapter 3.4.3.3.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

3.4.3.4. Other relevant impacts

Summary of Dossier Submitter's assessment:

The non-monetary costs (e.g., functioning of structures and their sustainability) and indirect costs (e.g., for industrial facilities or costs related to GHG emissions) of the proposed restriction could not be quantified by the Dossier Submitter.

SEAC conclusion(s):

SEAC considers that some other actors could be positively or negatively impacted by a restriction. However, SEAC does not expect major non-monetary impacts nor costs on other actors.

Key elements underpinning the SEAC conclusion(s):

SEAC's conclusion is based on the following arguments and assumptions:

- **Suppliers of creosote formulations** to treat sleepers and utility poles might be positively impacted if the chosen alternative would be freshly creosote-treated sleepers or utility poles. If the demand for freshly creosote treated wood will not increase significantly, then no significant impact on these actors is expected.
- **Impregnation sites** might be positively impacted if the chosen alternative would be freshly creosote-treated sleepers or utility poles. If the demand for freshly creosote treated wood is not increased significantly, then no significant impact on these actors is expected.
- **Suppliers of alternatives** (such as concrete or plastic) might be positively impacted if the alternative they produce will be chosen instead of reuse or instead of freshly creosote-treated sleepers or poles;
- **Importers of second-hand creosote-treated wood** are expected to be negatively impacted in economic and social terms as all restriction options ban the trade over inner EU borders. Hence, losses of turnover and of employment might occur.

The consultation on the SEAC draft opinion may provide information on this topic.

3.4.3.5. Proportionality

Summary of Dossier Submitter's assessment:

The Dossier Submitter concludes that the costs of the proposed restriction (both restriction options) are overall moderate and affordable. The context of the BPR renewal is stated to be a major factor, making RO2 more proportionate than RO1. The further development of other alternatives (e.g. copper hydroxide) as affordable alternatives to creosote treatment is

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

considered to be somewhat inhibited by the continued availability of creosote treatment for uses on railways sleepers and utility poles.

Based on the qualitatively assessed risk reduction potential of the proposed restriction and related benefits for the protection of human health (and especially the general public), the Dossier Submitter concludes that the proposed restriction is proportionate.

SEAC conclusion(s):

SEAC considers that all assessed restriction options are proportionate because every RO bans the use of creosote-treated articles by members of the general public, who are likely unaware of the risks and face a high risk of uncontrolled exposure to creosote and related substances. The benefits of avoiding these health impacts are considered to be substantial. Compared to the most substantial benefit of protecting the general public, the costs of the assessed restriction options are found to be relatively small. Therefore, it is very likely that each RO results in a positive net-benefit.

In addition to the finding that all ROs are very likely to be proportionate, SEAC's assessment looks at the comparison of net-benefits of the different ROs to find the most proportionate one. Based on a qualitative assessment of the costs and benefits, SEAC considers that, compared to RO2, RO3 is the most proportionate restriction option that minimises the costs, while having the same human health benefits as RO2 and higher environmental benefits. This is because RO3 would avoid higher leaching of creosote from freshly creosote-treated wood which remains the most likely alternative (still being allowed under the BPR), and it will save additional natural resources.

However, SEAC notes that this would be the case only provided that:

- Enforcement can be carried out in such a way to ensure that, while allowing the business-to-business sales, sleepers and utility poles would not enter the market in a way that would lead to the general public purchasing these products;
- The same conditions for the placing on the market and risk management measures defined under the BPR will be applied to re-users other than the original one, in order to protect human health;
- If in the future the first use of fresh creosote were not to be reapproved under BPR, then the reuse would be banned as well. SEAC considers that this is already guaranteed by the link to the BPR under the current proposal, and it is the Dossier Submitter's intention.

In case these three provisions are not met, SEAC notes that there would be no advantages from choosing RO3. In this case, SEAC considers that RO2, as proposed by the Dossier Submitter, will be the most proportionate restriction option.

Key elements underpinning the SEAC conclusion(s):

SEAC's conclusions are based on the following elements:

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- As the risk to the general public is higher than that to professionals (whether original users or other professional users) and considering that safer alternatives exist for the secondary applications, SEAC finds that the best restriction option would ban with priority the secondary use by the general public.
- All assessed ROs provide the same substantial benefit for the protection of the members of the general public, which are most at risk of uncontrolled exposure. In comparison to this benefit, the costs of the different ROs are considered to be relatively small.
- RO1 prohibits all reuses, which results in high costs compared to the other ROs. This would result in benefits if the second-hand creosote-treated material is replaced by safer alternatives, but it would result in no or limited benefits if the second-hand creosote-treated material is replaced by newly creosote-treated wood. The latter is considered by SEAC to be the most likely scenario.
- RO3 entails lower additional costs than RO2, as reuses by other professional users will remain allowed as in the baseline.
- RO3 restricts the secondary use by the general public of wooden sleepers and utility poles treated with creosote and creosote related substances that pose an unacceptable risk to human health and the environment.
- The risk posed by the reuse by professional users of creosote-treated wooden sleepers and utility poles would be avoided or reduced if the same conditions set under BPR for the original users are also extended to other re-users. In this case, the human health benefits of RO2 and RO3 would be the same.
- SEAC considers that until the use of freshly creosote-treated wood stops being reapproved, and given the lower prices of this alternative, both the original user and the other professional users would most probably choose this option. Given the potentially higher environmental risks from newly treated wood compared to old creosote-treated wood that has already at least partially leached the creosote and creosote-related substances (as concluded by RAC), risk reduction related to the allowed reuse of the creosote-treated sleepers and utility poles would probably be higher. Therefore, RO3 leads to less risk to the environment than RO2 and RO3 minimises the impact on the environment caused by the potential use of newly creosote-treated wood by other professional users.
- As secondary use by both original users and other professional users is allowed, RO5 is the least strict option with lower costs than for other options as well as the benefits associated with preventing the use by the general public. However, the secondary uses of creosote-treated wooden sleepers and utility poles are already partially restricted under entry 31 and the first use of fresh creosote on any other articles than sleepers and utility poles are completely restricted under the current BPR provisions. SEAC therefore considers that suitable alternatives have been found and that exposure of humans and the environment to creosote resulting from further secondary uses of creosote-treated wood is not justified.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- The costs of RO4 are higher compared to RO3 and the benefits are lower because RO4 bans the reuse by other professional users.

3.4.4. Practicality, including enforceability

Summary of Dossier Submitter's assessment:

Practicability is assessed in terms of implementability, manageability and enforceability. The proposed restriction is considered practical since it is implementable, manageable and enforceable.

Elements supporting the conclusion implementability are reported to include the following:

- Alternatives are already available on the market and used and the proposed restriction allows sufficient time to the impacted supply chains to transition,
- RO2 allows reuse of sleepers under identical conditions,
- Secondary uses of creosote-treated wood are already partly restricted under entry 31 of Annex XVII.

Elements supporting the conclusion manageability are reported to include the following:

- The proposed restriction (both ROs) is easy to understand for affected parties (incl. authorities),
- Due to the simplification and clarification of the role of the two regulations involved in this restriction proposal, the administrative burden is not expected to be higher than in the baseline (but easier to manage).

Elements supporting the conclusion enforceability are reported to include the following:

- The proposed restriction allows enforcement authorities to set up efficient supervision mechanisms to monitor industry's compliance with the regulatory measures (incl. the estimation of reused volumes and volumes discarded as waste),
- The implementation of labelling of creosote-treated wood is a simple solution to follow these articles along their service life (incl. the end of life). Labelling can be physical (e.g., engraving on a steel plate, bar code, QR code) or technological (e.g., NFC or RFID chip).

Elements supporting the conclusion practicability in general are reported to include the following:

- There are no economic impacts on creosote suppliers,
- The proposed restriction (both ROs) is easy to understand and communicate (down the supply chain) by affected parties.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Yet, the Dossier Submitter points out that difficulties in ensuring the adequate and complete disposal under the requirements of the WFD for wood treated before 31 December 2002 were noted.

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

SEAC conclusion(s):

SEAC considers that the restriction recommended by SEAC (RO3) is practical since it is implementable, manageable and enforceable.

SEAC considers that also other restriction options, including the one proposed by the Dossier Submitter (RO2), would also be implementable, manageable and enforceable.

Key elements underpinning the SEAC conclusion(s):

Implementability and manageability

SEAC's conclusion on implementability and manageability is based on the finding that the involved actors should be able to understand and comply with a restriction because access to information is available and alternatives are available and economically feasible within the transition period.

Enforceability

According to the FORUM advice on the enforceability of the restriction proposed by the Dossier Submitter, the enforcement activities will be implemented via review of relevant documentation on acquisition, sales and/or disposal of treated articles. Moreover, FORUM has confirmed that the resources required for enforcement of the restriction proposed by the Dossier Submitter do not seem to be higher than the resources currently needed to enforce entry 31. SEAC expects that, in contrast to the current entry 31 of REACH Annex XVII, enforcement could even become easier as no distinction is made in the new proposal between wood treated before and after 31/12/2002 and reuse will be limited to a smaller number of clearly defined applications. SEAC considers that the arguments provided by FORUM are valid also in the case of the other restriction option assessed by SEAC (RO3, RO4 and RO5).

SEAC considers that allowing the reuse by other professional users than the original one (RO3) may require to ensure that the business-to-business sales will not end up being business-to-consumer sales, and thus second-hand market enforcement might require more thorough controls. However, SEAC expects that national enforcement authorities will be able to set up efficient supervision mechanisms to enforce compliance with the restriction option recommended by SEAC (RO3).

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

SEAC notes that adequate and complete disposal under the requirements of the WFD for wood treated before 31 December 2002 might be difficult to be ensured.

SEAC concurs with the Restriction Task Force (2017), which previously noted that enforcement of prohibitions on placing on the market and use is difficult where the goods are being re-sold or used by (non-professional) consumers. As in the current proposals (RO2 and RO3) allowed use is limited to two approved professional applications (sleepers and utility poles), SEAC expects that in this case enforcement is possible. This is in line with the conclusions by FORUM.

In regard to sampling and analysis of wood, FORUM indicated that it would likely be possible to detect certain marker PAH, but that it would likely not be necessary due to the availability of documentation.

Concerning labelling of treated wood, FORUM further came to the conclusion that it may not be necessary to implement such a measure (at least in RO2) if reuse is limited to professional users and to Member States that allow the use of new creosote wood. SEAC notes that labelling is currently mandatory for newly creosote-treated wood as it is one of the conditions of the recently renewed BPR approval. SEAC acknowledges the benefit of labelling of treated articles but does not consider it in the scope of this restriction proposal.

3.4.5. Monitorability

Summary of Dossier Submitter's assessment:

The proposed restriction is considered to be monitorable. Elements supporting this conclusion are reported to include the following:

- The implementation of the proposed restriction options can be monitored via surveillance programs of national enforcement bodies and existing reporting systems;
- Information on market trends related to the use of alternatives in wood treatment may provide valuable additional information on the regulatory effectiveness of the restriction;
- The implementation of labelling of creosote-treated wood is a simple solution to follow these articles along their service life (incl. the end of life). Labelling can be physical (e.g., engraving on a steel plate, bar code, QR code) or technological (e.g., NFC or RFID chip).

Yet, the Dossier Submitter points out that difficulties in ensuring the adequate and complete disposal under the requirements of the WFD for wood treated before 31 December 2002 were noted.

RAC conclusion(s):

[See RAC opinion]

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

SEAC conclusion(s):

SEAC considers that RO2 the restriction as proposed by the Dossier Submitter is monitorable. SEAC also considers that the other restriction options (incl. RO3) are also monitorable.

Key elements underpinning the SEAC conclusion(s):

Documentation

SEAC considers that monitoring of the implementation and the impacts of the proposed restriction for the creosote-treated wood articles that are treated, used, reused and disposed of as (hazardous) waste by economic actors would become easier after the restriction proposal would come into force. The ban of secondary uses by the general public and/or by the original user and the limitation of reuse to the original user implies that placing on the second-hand market would be reduced and enforcement authorities could expect that all treated articles used by each user will also be channelled into adequate disposal by the same user. However, SEAC expects that also in the case reuse by other professional users is allowed (RO3) monitoring is feasible.

As mentioned in the context of enforcement, monitoring will most likely be achieved through documentation by users and audits by national enforcement authorities and existing reporting systems. Based on that SEAC considers that the implementation and the impacts of the proposed restriction will be monitorable throughout the service life of treated articles until their destruction.

Labelling

SEAC concurs with the Dossier Submitter that the introduction of a specific labelling obligation for new creosote-treated wood under the Biocidal Product Regulation (EU) No 528/2012 will allow a better follow up of the treated articles all along their service life in future. The Dossier Submitter did not propose specific labelling for reuse and FORUM also doubted the practicality as consumers would not be allowed to reuse creosote-treated products and no distribution would occur in those Member States not included in the ECHA list.

3.4.6. Conclusion whether the suggested restriction is the most appropriate EU-wide measure

RAC conclusion(s):

[See RAC opinion]

Key elements underpinning the RAC conclusion(s):

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

[See RAC opinion]

SEAC conclusion(s):

SEAC concludes that all assessed restriction options are proportionate due to the substantial benefit of protecting the health of members of the general public in combination with comparatively small costs.

As long as conditions can be imposed on business-to-business sales which mean creosote-treated sleepers and utility poles would not enter the market in a way that would lead to the general public purchasing these products, SEAC concludes that RO3 is the most appropriate restriction option that minimises costs and likely maximises benefits by restricting the secondary use by the general public while allowing the reuse by professional users under the certain conditions for reuse as in the BPR.

SEAC considers that RO3 is implementable, monitorable, and enforceable.

Key elements underpinning the SEAC conclusion(s):

SEAC's conclusion considers the arguments already explained in the proportionality section of this draft opinion.

SEAC does not consider that there are major differences in the practicality and monitorability between the various options. SEAC concludes that they are:

- implementable, as involved actors should be able to understand and comply with it because information is accessible and alternatives are available and economically feasible within the transition period;
- monitorable by national enforcement bodies via surveillance programs and existing reporting systems;
- enforceable, as national enforcement authorities are able to set up efficient supervision mechanisms to enforce compliance with the recommended restriction option (RO3) after entry into force. However, SEAC notes that controls on the business-to-business sales should be done in such a way that sales to the general public are avoided.

3.5. SUMMARY OF UNCERTAINTIES

3.5.1. Uncertainties evaluated by RAC

Summary of Dossier Submitter's assessment:

The Dossier Submitter acknowledges that data are not sufficient to perform a quantitative risk assessment. However, data have been considered sufficient to perform a qualitative risk assessment.

RAC conclusion(s):

[See RAC opinion]

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

Key elements underpinning the RAC conclusion(s):

[See RAC opinion]

3.5.2. Uncertainties evaluated by SEAC

Summary of Dossier Submitter's assessment:

The Dossier Submitter did not carry out a formal uncertainty analysis as part of the restriction proposal but highlights on a few occasions that missing data impacts the cost assessment.

SEAC conclusion(s):

SEAC considers that several uncertainties persist on the occurrence and extent of reuse and secondary use in different Member States, on the current and future use of alternatives, as well as on costs, benefits and proportionality. However, even if a quantitative sensitivity analysis is not possible for the variables that contribute to the uncertainties, SEAC also considers that the uncertainties discussed below would not have major impacts on SEAC's conclusions on the effectiveness, practicality and monitorability of the restriction option proposed by the Dossier Submitter (RO2) and of the other restriction options assessed by SEAC (incl. RO3). SEAC also considers that these uncertainties are not expected to prevent the Commission from making its decision on which is the most appropriate EU wide measure.

Key elements underpinning the SEAC conclusion(s):

SEAC identified the following main uncertainties associated to the baseline scenario as well as concerning the restriction scenario:

- Though reuse and secondary use certainly exist in some EU Member States, uncertainties remain on the existence and volumes of wooden second-hand sleepers currently reused by the original user or by a different user and/or used in secondary applications in other Member States. The specific situation may be quite different in each country (see Table B-5). In some Member States reuse occurs, in others it does not. Specific data concerning many Member States with long railway networks (Romania, Sweden, Italy - see Table B-5) are not available. Therefore, the question is whether the available data (mainly for France before the national ban) are representative for the European situation and hence can be extrapolated for an assessment at European level. Currently, in France, the national restriction is already in place and creosote-treated sleepers cannot be used anymore by re-users other than the original user. At this stage of the opinion development, it is not known what share of the reuse/secondary use concerns railway sleepers from after 31/12/2002.
- Concerning utility poles, it is not known but it is not unlikely that some reuses and secondary uses exist in some EU Member States by the national or private DSOs.
- The main uncertainties on alternatives relate to the following:

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

- The future choice of alternatives by current re-users (incl. touristic railway managers) remains uncertain. It cannot be easily foreseen in advance which types of alternative sleepers will be installed (e.g. concrete, steel, plastic, wooden). Moreover, in case wooden sleepers will be chosen, it is uncertain with which substance they would be treated (creosote, copper hydroxide or other substances). Thus, it remains unclear whether re-users would in the future opt for newly creosote-treated wood or for other safer alternatives, even if new creosote is currently the preferred alternative due to their lower prices.
- Changes in commercial availability and technical and economic feasibility of alternatives that will be adopted in the future are uncertain and may be dependent on future demand and price.
- There is limited information on the state of play concerning the replacement of old creosote sleepers by other material and thus the amount of second-hand creosote sleepers that currently reach the market and that will reach the market in the future in the different European Member States. This may affect receptivity for alternatives, although the available data suggest still a considerable exchange within the EU member states and to/from outside the EU exist.
- Banning of secondary use of railway sleepers will have an economic implication in the secondary uses that rely on second-hand railway sleepers. The information provided for a limited number of applications indicates that alternatives are more expensive, but as information on the volume of sleepers used for secondary use is lacking, the economic impact remains uncertain.
- Uncertainties on the level of professionalism of workers of the national and private railway managers in terms of training and protective measures:
 - If professionals of the private railways or DSOs who are currently installing second-hand sleepers or utility poles for reuse are sufficiently trained and protected by use of required PPE, restriction options leaving the possibility of reuse by another actor than the original one should be preferred as health risks of professionals would be equally protected and the costs will be lower.
 - If professionals of the NRIMs or national DSOs who are currently dismantling sleepers or utility poles and reinstalling them in other locations in their networks are sufficiently trained and protected by the use of adequate PPE, restriction options leaving the possibility of reuse by the original user (in the same country and under similar conditions) would have to be preferred as health risks and costs would be avoided, hence increasing the proportionality.
 - If professionals of the NRIMs or national DSOs who are currently dismantling sleepers or poles for transforming them and using them for secondary applications (such as embankments) are sufficiently trained also for secondary applications and protected by using the required PPEs, then restriction options leaving the possibility of secondary use by the original user (in the same country) would have to be preferred as health risks and costs are avoided and the proportionality of the

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

measure would be higher.

- Uncertainties on the proper disposal as hazardous waste of creosote-treated sleepers and poles by national and private railway managers or national DSOs in terms of training and protective measures:
 - If NRIMs or NDSOs are properly disposing of sleepers or poles as hazardous waste in incinerators with energy recovery, restriction options leaving the possibility of reuse by the original user would have to be preferred as risks to the environment and human health via the environment would be avoided and benefits from extending the service life would be achieved.
 - If private railways or DSOs currently dispose of their sleepers or poles as hazardous waste in incinerators with energy recovery, restriction options leaving the possibility of reuse by another actor than the original user would have to be preferred, as risks to the environment and human health via the environment would be avoided and benefits from extending the service life would be achieved.
 - Similarly, if NRIMs or national DSOs are properly disposing of sleepers or poles as hazardous waste in incinerators with energy recovery, restriction options leaving the possibility of reuse by the original user in the same country and under similar conditions, as risks to the environment and human health via the environment would be avoided and benefits from extending the service life would be achieved. Moreover, if national networks would dispose of creosote treated wood in a better way than the private actors. If, on the contrary national railways or DSOs currently dispose of sleepers or poles ad illegally in landfills or improperly in incinerators without energy recovery, options restricting the possibility of reuse by the original user would be necessary, as risks to the environment and human health via the environment would be avoided. However, SEAC notes that, if improper/illegal disposal is currently done, the major issue might be the current enforcement practices.
- Uncertainties on the different cost categories and their evolution over time for the affected actors (secondary users, re-users other than the original one, NRIMs, NEAs, etc.);
- Uncertainties remain on the environment and on human health benefits associated to the different restriction options; These uncertainties are related to the absence of quantitative information on volumes reused by original and other professional users and on the preferred alternative(s). The benefit will increase when safer alternatives are used, but not if newly creosoted wood is applied. The Dossier Submitter suggested that the limitation of reuse to the original user may increase proper handling in the waste phase and thus increase the benefits, although this was not further substantiated by proper data. Furthermore, uncertainties around the training and use of PPEs by the personnel handling the creosote sleepers and to disposal of the sleepers exist.

SEAC hopes that its assessment of the uncertainties associated to the baseline would encourage stakeholders to provide during the public consultation some of the missing information that could allow to dissipate at least partially such uncertainties.

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

In case no new information would be received, SEAC considers that this assessment of uncertainties would provide the Commission with sufficient elements to take the best decision even under imperfect and asymmetric information.

DRAFT

OPINION ON AN ANNEX XV DOSSIER PROPOSING RESTRICTIONS ON
CREOSOTE, AND CREOSOTE RELATED SUBSTANCES

4. REFERENCES

n/a

DRAFT