Ingekomen stuk voor Statenvergadering B&E d.d. 14 mei as. Agendapunt 10

Gevaar Bisphenol-A (compilatie diverse bronnen)

https://brc.org.uk/news-and-events/news/associate-insight/2025/the-new-european-regulation-20243190-on-bisphenol-a/ On Dec. 19, 2024, the European Commission adopted European Regulation 2024/3190, which bans the use of BPA in various products intended to contain food and beverages.

Wind turbine blades are the largest consumer of epoxy plastics. In 2013, 27% (69,000 tons) of all epoxy resin went to wind turbine production. The annual global production of Bisphenol A in turn is more than 10 million tons, and a significant increase is expected in the coming years.



https://maritime-executive.com/article/siemens-gamesa-uncovers-deep-flaws-in-legacy-wind-turbine-fleet

Wind turbine builder Siemens Gamesa has warned previously that it faces large costs in connection with durability issues in its legacy fleet, but the exposure looks to be a lot larger than expected, the company warned on Friday. A thorough review has discovered a "substantial increase in failure rates of wind turbine components," and efforts to determine the depth of the problem continue.

"The result of the current review will be much worse than even I would have thought possible. The quality problems go well beyond what had been known hitherto, in particular in onshore," said Siemens Gamesa CEO Jochen Eickholt at a press conference Friday. "We are tackling the topic but it is time consuming and it comes at a cost."

The firm's Spanish (Gamesa) unit has discovered *significant problems with rotor blades* and bearings in some of its onshore turbine models, and there are issues facing older "legacy"

installations as well, the firm said. The scope extends to 15-30 percent of the company's total installed fleet, according to Reuters.

https://www.zeeland.nl/sites/default/files/digitaalarchief/IB23 b50318e9.pdf

Siemens Gamesa had to perform an "emergency" blade repair on 140 of the 175 turbines at the 630 MW supplying London Array wind farm in March 2018 due to earlier-than-expected leading edge erosion. This came a month after Siemens Gamesa was forced to repair 87 of the 111 turbines at a 400 MW farm in Anholt, Denmark. Both cases involved 3.6 MW turbines with a rotor diameter of 120 meters and installed in 2013. The fact that these relatively small turbines are already showing advanced erosion on such a scale in less than five years emphasizes the seriousness of the problem facing the (offshore) wind industry.

It is not known how much material has ended up in the environment, nor is the cost of the repair known. Wind turbine blades are the largest consumer of epoxy plastics. In 2013, 27% (69,000 tons) of all epoxy resin went to wind turbine production. The annual global production of Bisphenol A in turn is more than 10 million tons, and a significant increase is expected in the coming years.

Siemens Gamesa said that it had installed more than 950 of the affected model worldwide, but was unable to confirm the number in the UK. Orsted, the Danish company that coowns both London Array and West of Duddon Sands, said that it was also assessing four other wind farms that used a similar specification of turbine.

Far bigger turbines are now being installed but Siemens Gamesa said that they should not be affected because the potential for the leading edges to erode was identified in 2014 and all machines installed since had extra protection.

Risico van ongelukken en schadeposten voor ontwikkelaars

Director of the Center for Food, Power, and Life, Research Editor, John Locke Foundation

August 2, 2024 - Last week in *The Carolina Journal*, I discussed <u>an emerging ecological</u> <u>disaster with ramifications for North Carolina</u>. Policymakers should heed the warning.



On July 13, a single blade broke on a wind turbine in the Vineyard Wind offshore wind energy facility. The blade is longer than a football field. The cause of the breakage is unknown, but wind advocates and company (GE Vernova) officials suggested it was likely a manufacturer's defect, for which people are expected to be relieved that "this was a one-off error, not a fundamental flaw with the blade design or engineering." (According to *Offshore* magazine, broken turbines have happened in the UK earlier this year, and also in Germany and Sweden in recent years.)

Regardless, the broken blade has been spreading fiberglass waste across the ocean ever since, and this dangerous debris has been not only affecting sea creatures in the deep but also washing ashore on nearby beaches. Local officials warned about "floating debris and sharp fiberglass shards" and cautioned beachgoers not to go barefoot. The Nantucket Harbormaster had to close all southern-facing Nantucket beaches.

Within a week, <u>more than six truckloads' worth of debris</u> had been removed, but fiberglass waste <u>continues to turn up</u> even <u>now</u>. Worse, it's spreading farther. It's now washing up in Rhode Island.

Rapid unplanned disassembly:

NEFSA Responds to Damaged Vineyard Wind Turbine Struck by Lightning. March 3, 2025 The Vineyard Wind turbine that fell apart in July 2024 was struck by lightning last week, prompting a Coast Guard response and a scramble to assess damage and fallout. As NEFSA has <u>previously explained</u>, offshore wind development (maar ook op land) is beset with serious, unresolved environmental questions.

Schade en herstel Vineyard windpark links:

 $\frac{https://www.vineyardwind.com/press-releases/2024/10/23/ge-vernova-and-vineyard-wind-provide-update-on-incident-and-response-action-plan}{}$

News: https://www.youtube.com/watch?v=eVYZXSN3C80

News: Vineyard Wind suspension order lifted ahead of Trump term....

All construction can resume, but all blades manufactured in Gaspé, Quebec, must be removed.

<u>Conclusie:</u> ook bij on-shore Windturbines is de kans op verspreiding van Bisphenol-A door slijtage, vogel-impacts, blikseminslag, brand, etc. een heikel punt met identieke problematiek en kan dus ook op land leiden tot enorme vervuiling en schadeposten.

EU Wetgeving link

Verordening (EU) 2024/3190 van de Commissie van 19 december 2024 betreffende het gebruik van bisfenol A (BPA) en andere bisfenolen en bisfenolderivaten met een geharmoniseerde indeling in verband met specifieke gevaarlijke eigenschappen in

bepaalde materialen en voorwerpen bestemd om met levensmiddelen in contact te komen, tot wijziging van Verordening (EU) nr. 10/2011 en tot intrekking van Verordening (EU) 2018/213

https://eur-lex.europa.eu/legal-content/NL/ALL/?uri=OJ%3AL 202403190

Document 32024R3190

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Deze EU wetgeving geldt natuurlijk ook voor het cumulatief verspreiden van deze toxische stof in het milieu dat indirect door mens en dier wordt opgenomen en zo in onze voedselketen terecht komt!

Wetenschappelijke Literatuur inzake Bisphenol A

https://www.sciencedirect.com/science/article/pii/S0025326X2500390X

Review: 2025

Chemical emissions from offshore wind farms: From identification to challenges in impact assessment and regulation

https://www.sciencedirect.com/science/article/pii/S0142112324004766

Fatigue damage mechanics approach to predict the end of incubation and breakthrough of leading edge protection coatings for wind turbine blades

https://www.sciencedirect.com/science/article/pii/S0263224125006074

Quantitative identification of crack damage in composite offshore wind turbine blades considering environmental aging

https://www.sciencedirect.com/search?qs=bisphenol%20A%20toxicicity

37.207 zoekresultaten (Engels) op keywoorden "Bisphenol A toxicity" waarvan 2.946 in 2025

Voor meer info, klik S.V.P. op de blauwe hyperlinks in de tekst!