September XX, 2024

The Honorable Joseph Goffman

Assistant Administrator

Office of Air and Radiation

U.S. Environmental Protection Agency

1200 Pennsylvania Avenue, N.W.

Washington DC 20460

**Subject: Opposing Use of Radioactive Phosphogypsum in Roads**

Dear Assistant Administrator Goffman,

We the undersigned XX organizations are writing in opposition to the use of phosphogypsum in road construction. This radioactive waste emits harmful, cancer-causing radon gas and contains other carcinogens and heavy metals like arsenic, cadmium, and lead.[[1]](#footnote-1) Despite well-documented harm and serious risk, the pending “small-scale study” on road-use permits cancer-exposure three times the amount legally permissible, in contravention of the Clean Air Act and the Biden Administration’s commitments to environmental justice and cancer prevention.

Since 1992, the Environmental Protection Agency has prohibited the use of phosphogypsum in road construction, citing numerous scenarios that would expose the public, and especially road construction workers, to an unacceptable risk of cancer. EPA also found that phosphogypsum used in roads could contaminate nearby surface and groundwater quality through leaching, and that radioactive material could be re-suspended into the air by wind and vehicle traffic. Phosphogypsum stacks are also historically located adjacent to vulnerable communities that are already dealing with disproportionate legacy impacts of cancer-causing pollution and environmental injustice. Phosphogypsum generated in Central Florida exhibits substantially higher levels of radiation than other regions and countries, and given that the radium-226 present in phosphogypsum has a 1,600-year half-life and will outlast most roads throughout the state, the EPA must look at the long-term consequences of its use in road construction.

Any application for other use *must* be “at least as protective of public health, both in the short term and the long term, as disposal of phosphogypsum in a stack or mine,” meaning that it may not exceed a lifetime cancer risk of 9.1 in 100,000.[[2]](#footnote-2) This is precisely why EPA excluded road construction as a viable alternative use in its 1992 rulemaking, finding that cancer risks *always* exceeded even the upper limit of the presumptively safe level of 1 in 10,000 historically used as the ceiling for Clean Air Act safety determinations. The Director of EPA’s Office of Radiation and Indoor Air previously testified before Congress that “[a]n unreasonable risk is one that exceeds 1 in 10,000” and that “a generic national exemption for road building material could not meet the risk criteria.”[[3]](#footnote-3)

Approval of a flawed application for a pilot road project will inevitably lead to a flawed application for road use throughout Florida or even nationwide. This small-scale study is not an innocuous science-experiment, it is in fact “the intermediate step between laboratory testing and full-scale implementation” of phosphogypsum use in roads. Approving this application would accept a cancer risk that is three times what EPA has historically deemed acceptable. Even assuming the cancer threshold was appropriate, the application relies on the concept of “reasonable maximum exposure,” a term that has never once appeared in any guidance document or rulemaking, but that allows for any assessment of risk to be severely limited – only looking at 1 year of potential exposure for utility workers for example.

Any practice “involving exposure to radiation” must “do more good than harm” taking into account social costs and should offer “legitimate use with real benefits” and not just a convenient disposal option.[[4]](#footnote-4) EPA cannot hope to halve cancer risks in accordance with the Biden Administration’s Cancer Moonshot while tripling the level of cancer risk it will now accept by approving a flawed and harmful radioactive roads project.[[5]](#footnote-5)

Sincerely,

[[GROUPS]]

1. EPA BID, Potential Uses of Phosphogypsum and Associated Risk (1992) [↑](#footnote-ref-1)
2. 40 C.F.R. 61.206(c); National Emission Standards for Hazardous Air Pollutants and Radionuclides, 54 Fed. Reg. 51654, 51675 (Dec. 15, 1989) [↑](#footnote-ref-2)
3. Phosphogypsum: Should We Just Let It Go to Waste? Parts 1 and 2: Hearing Before the Subcomm. On Technology, Information Policy, Intergovernmental Relations, and The Census, 108 Cong. 191 (2004). [↑](#footnote-ref-3)
4. U.S. EPA, Applying to EPA for Approval of Other Uses of Phosphogypsum at 11 (Dec. 2005) [↑](#footnote-ref-4)
5. https://www.whitehouse.gov/briefing-room/statements-releases/2024/08/13/fact-sheet-biden-harris-administration-announces-150-million-from-arpa-h-to-deliver-progress-on-biden-cancer-moonshot-goals-and-improve-health-outcomes/ [↑](#footnote-ref-5)