Response to Letters from Andrews and Tans, Edwards, and Musolino commenting on Skrable et al.—"World Atmospheric CO_2, Its ^{14}C Specific Activity, Non-fossil Component, Anthropogenic Fossil Component, and Emissions (1750–2018)"

As the Editor-In-Chief of *Health Physics,* I am ultimately responsible for the editorial decisions about the content of the Journal. Therefore, while I leave it to Skrable et al. (2022) to respond to specific scientific criticisms of their work, which I'll refer to as the Skrable paper, I will respond to criticisms of my decision to receive this paper for peer review and accept it for publication that are expressed by Andrews and Tans, Edwards, and Musolino in their Letters to the Editor in this issue. My paraphrases of their concerns are presented below, along with my responses.

The commentors argued that the Skrable paper is outside the scope of *Health Physics*. I disagree. The journal's scope is clearly articulated in our Instructions for Authors (https://edmgr.ovid.com/hpj/accounts/ifauth.htm):

"*Health Physics*, first published in 1958, provides the latest research to a wide variety of radiation safety professionals including health physicists, nuclear chemists, medical physicists, and radiation safety officers with interests in nuclear and radiation science. The Journal allows professionals in these and other disciplines in science and engineering to stay on the cutting edge of scientific and technological advances in the field of radiation safety. The Journal publishes original papers, technical notes, articles on advances in practical applications, editorials, and correspondence. **Journal articles report on the latest findings in** theoretical, practical, and applied disciplines of epidemiology and radiation effects, radiation biology and **radiation science, radiation ecology, and related fields**" (emphasis added).

Radiation ecology encompasses the use of radionuclides in the environment to study ecological processes and biogeochemical cycles—including the global carbon cycle. Yes, many papers in *Health Physics* focus directly on radiation safety, but there is ample precedent for this journal publishing papers like Skrable et al. (2022). A quick search produced numerous examples, e.g., Anspaugh et al. 2002; Bennett 2002; Livingston and Povinec 2002; Machta 2002; Whicker and Pinder 2002; Coleman et al. 2012; Hayes and Akbarzadeh 2014; Whicker 2018, and a more comprehensive search would undoubtedly reveal several others. The Skrable et al. paper is solidly within our scope and adds to a body of similar research previously published in *Health Physics*.

The commentors asserted that the authors should have submitted their paper to a more relevant (in their opinion) journal (e.g., *Journal of Geophysical Research* or *Geophysical Research Letters*). It is not clear to me how the commentors could know what journals the authors submitted their manuscript to prior to submitting it to *Health Physics*. In their response to this criticism in this issue, Skrable and his co-authors revealed that they had indeed previously submitted a similar version of this manuscript to the *Journal of Geophysical Research*, but that journal was unable to secure two qualified peer-reviewers. I am assuming—though the authors did not state so—that part of the difficulty in securing peer-reviewers stemmed from the interdisciplinary nature of their work, which straddles radiation and atmospheric sciences. This leads to the last criticism I will address.

The commentors stated that the peer-reviewers selected by the Journal are unqualified to review Skrable et al. (2022) due to a lack of expertise in atmospheric sciences. Again, as *Health Physics* employs double-blind peer-review, and the identities of reviewers are kept confidential, it is not at all clear how the commentors could have known who reviewed this paper and their qualifications to do so. Regardless, this claim is without foundation. In fact, both peer-reviewers were selected specifically for their expertise in atmospheric science/meteorology/climate science.

Contrary to the claims of the commentors, publishing this work in *Health Physics*—which welcomes interdisciplinary research with a radiological science component—subjected Skrable et al. (2022) to scientific scrutiny and criticism from members of the relevant disciplines, as evidenced in part by the Letters in this issue. That is why we made this article freely available to the public (for eight weeks), and not just to *Health Physics* subscribers. This scrutiny would not have occurred had *Health Physics* declined—erroneously in my opinion—to accept this work based on an overly narrow interpretation of our scope.

In closing, I stand behind my decision to publish Skrable et al. (2022) in *Health Physics*. I invite our readers to examine the original paper, the criticisms in the Letters in this issue, and the authors' responses to these criticisms and come to their own informed conclusions of this work.

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