

December 28, 2010

To: Invited reviewer name and address

Re: Health effects of Wildfire in the irradiated forests of the Chernobyl Exclusion Zone: request for review of report.

Dear invited reviewer:

We received your name from a longer list of experts on radiation health and safety that we obtained from the United States National Academy of Sciences and other, similar international sources.

We are asking you to review a report on the health effects of a highly likely catastrophic fire in the irradiated forests adjacent to the ill-fated Chernobyl Nuclear Reactor, Ukraine.

After you have read this letter, we would appreciate your immediate response of whether you will agree to the review. And, we will appreciate your review by March 1, 2011.

The report (attached) is 18 pages of text (double-spaced) and is a “screening” model that examines the health implications for Kiev and elsewhere of the “worst case” of a forest fire. At present, a forest fire could lead to panic and irrational actions. To avoid this, we did an analysis of the health effects of a fire that is more extreme than likely, realizing that the results would give us an “upper limit” to the effects of a fire. The analysis links four models (See also Table of Contents in Report):

- Source model
- Transport model
- Exposure model
- Cancer incidence and mortality model

We want to ensure the report is not flawed and then release it in a way that will be neither unnecessarily alarmist nor irresponsibly minimalist. We are also concerned that open discussion of the subject without a credible report could lead to pyromaniac or terrorist activities.

This past summer (2010), wildfires burned in Russia and created concern and near-panic in Kiev. We worked with news reporters in Kiev to avoid an alarmist reaction, but want to be sure that we are on firm scientific grounds.

Consequently, we are soliciting reviews from you and others. We will make public your and the other reviews at the same time that we publicly release our report to maintain its transparency, responsibility, and credibility.

We are requesting that you review the report and send back to us answers to the questions listed at the end of this letter. We will treat all reviews as follows:

1. If the reviewers show a fundamental flaw in the report, we will do a reanalysis and request new reviews—from you and others;
2. Otherwise, we will publish the report AND the reviews, cover letters and CV's in their entirety.

We are taking this open approach because of concerns that negative comments may be hidden and ignored in such reviews.

As background, see the attached paper. In summary, the high and increasing risk of catastrophic fires was noticed by Professor Sergiy Zibsev (National University of Life and Environmental Sciences of Ukraine) and brought to others' attention. An ad hoc group of scientists from around the world cooperated to assess and bring attention to the apparent danger. We analyzed the forest fire danger and found it to be high. We also found that the danger can be resolved through a series of proactive silviculture and fire management steps, although these would be costly (in part because the highly irradiated trees have limited commercial use).

The international scientific cooperation was admirable—especially considering this was a voluntary group.

Meanwhile, a second scientific question was raised in addition to the first one of how likely are the forests to burn. This second question was: how significant will be the health effects of the smoke and other releases of radiation by the fire. To answer that question, an analysis was done by Dr. Aaron Hohl and Dr. Andrew Niccolai of the Global Institute of Sustainable Forestry of Yale University, with input from an international group of scientists.

The results have been presented at an international conference in Kiev and at the International Union of Forest Research Organizations' pentennial global meeting this past August (2010) in Seoul, Korea.

We were interviewed by reporters in the United States and Kiev this summer when fires threatened to burn the irradiated forests in Ukraine. Fortunately, the fires did not occur; and, we hope that our analyses are correct and that we gave the public sound advice.

We are now asking you to review our analyses. We then intend to make the report and reviews public. (Obviously, if serious errors are found in the report, we will correct them and solicit new reviews.)

In summary, could you please

- 1) inform us right away if you will be willing to review the report:
- 2) return your review based on the "Review Guidelines" (below) by March 1.

Please treat this as confidential. If there is a trusted colleague you would like to invite to review the document in addition to yourself, please inform me of his/her address and affiliation and I will follow up.

I would appreciate hearing from you at your earliest convenience.

Sincerely,

*Chad Oliver*

Chadwick Dearing Oliver  
Pinchot Professor of Forestry and Environmental Studies, and  
Director, Global Institute of Sustainable Forestry,  
School of Forestry and Environmental Studies  
Yale University  
223 Kroon Hall, 195 Prospect Street  
New Haven, CT 06511  
off: (203) 432 7409  
cell: (203) 494 - 1178 (does not function in my office)  
home: (203) 752 - 7528  
(I am in the field until January 7, 2010)

Attachment

Cc: Dmytro Melnychuk, Rector, National University of Life and Environmental Sciences of  
Ukraine (NUBiP of Ukraine)  
Sergiy Zibtsev, Associate professor, Forestry, Head of International Programs, Institute of  
Forestry and Landscape-Park Management, National University of Life and  
Environmental Sciences of Ukraine  
Johann G. Goldammer, Professor, The Global Fire Monitoring Center (GFMC), Fire Ecology  
Research Group, Max Planck Institute for Chemistry, Freiburg University / United  
Nations University (UNU)  
George Chopivsky, Jr., President, Chopivsky Family Foundation

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(See Checklist for Review below and on attached sheet)

**Checklist for Review (to be returned by March 1, 2011):**

*Please return the following documents to us. We will include these in the documents we will make public, in order to ensure the transparency of the review.*

- I. Your short CV (1 to 2 pages)
- II. Cover letter on your letterhead, stating your general findings
- III. Summary comments on the report, including comments on the following (1 to 3 pages, or more if you feel appropriate):
  - 1) The report links four models. Which of the models do you feel competent to comment on? (hopefully, as many as possible)
  - 2) Are the analyses in the report adequate? Do they lead to results and conclusions that you feel comfortable endorsing? (Please add any reservations you have here or in #3, #4, or #5.)
  - 3) What are the cautions with the report? And, what are its strengths?
  - 4) Do you feel additional or different analyses that should be done before the report is released?
  - 5) For future analyses, can you suggest additional or different analyses that would enhance the certainty of the report, even though the report is certain enough to be released as is— or with minor change/cautions/etc.
  - 6) Please make any other comments and/or general suggestions here.