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**From:** Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]  
**Sent:** 10/17/2017 9:15:43 PM  
**To:** Michael Bastasch [mike@dailycallernewsfoundation.org]  
**CC:** Bowman, Liz [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c3d4d94d3e4b4b1f80904056703ebc80-Bowman, Eli]  
**Subject:** Additional info

Hey Mike, there is a lot of information below but it should answer any questions you have about the PAG document and the additional Q and A doc. I'll get you a quote from our career staffer who works on these documents within the hour.

**PAG Manual – January 11<sup>th</sup>, 2017**

[https://www.epa.gov/sites/production/files/2017-01/documents/epa\\_pag\\_manual\\_final\\_revisions\\_01-11-2017\\_cover\\_disclaimer\\_8.pdf](https://www.epa.gov/sites/production/files/2017-01/documents/epa_pag_manual_final_revisions_01-11-2017_cover_disclaimer_8.pdf)

(this is the original document that was revised during the previous administration, and from which the Q&A document is drawn – finalized and posted in mid-January 2017. The pdf is dated 01-11-2017)

**Additional Background:**

The PAG Manual action levels are designed to prevent immediate health effects from radiation while balancing those risks against those associated with protective actions (e.g., accidents during evacuations). **PAGs do not establish an acceptable level of risk for normal, non-emergency conditions, nor do they represent the boundary between safe and unsafe conditions.** In the context of a radiological emergency, a 5–10 rem dose would not result in widespread harmful health effects.

**Posted September 2017** – Protective Action Questions & Answers for Radiological and Nuclear Emergencies: A companion document to the U.S. Environmental Protection Agency Protection Action Guide (PAG) Manual (PDF)(49 pp, 4 MB, September 2017, EPA-402/K-17/002)

Pre-scripted radiation emergency public safety messages intended to help emergency planners prepare public communications prior to and during a radiological emergency.

Q&A doc -- [https://www.epa.gov/sites/production/files/2017-07/documents/pags\\_comm\\_tool\\_p9.pdf](https://www.epa.gov/sites/production/files/2017-07/documents/pags_comm_tool_p9.pdf)

Essentially PEER – and by extension, Bloomberg – ignored plain language on the website and in the documents themselves regarding the timing of and intention behind the PAGs and the recently posted supporting materials. EPA's materials are clear that **1) the PAGs Guidelines were finalized in January 2017, and thus, are not "new" and the current administration did not issue them; 2) they do not "ease off" protections or change standards; and 3) short-term protective levels following a radiological incident are intended to minimize exposure during an emergency and do not supersede existing standards.** Also, PEER did not contact anyone in OAR prior to issuing their press release.

We talked with OAR's Radiation Protection Division and in the Office of Water to review both PEER's release and the Bloomberg article. The information below is what I've gotten back. We think the information below is enough to check these sources' claims before printing them in the future.

EPA has not any relaxed any radiation protection standards. The Protective Action Guides (PAGs) Manual is a planning guide for emergency responders, and does not change federal, state or local environmental standards. Finalized in January 2017, the PAG Manual contains radiation dose guidelines that would trigger public safety measures, such as evacuation or provision of alternate sources of drinking water, to minimize or prevent radiation exposure during an emergency.

EPA's website, the PAGs Manual, and the recently added resources for emergency responders clearly state these points in plain language.

The drinking water PAG is non-regulatory guidance that authorities can use to protect residents from experiencing the harmful effects from radiation in drinking water following a major, **nationally significant radiological emergency**. The purpose of EPA's Protective Active Guide (PAG) for Radiological Incidents is to guide short-term planning and decision-making efforts by local and state officials. **It is not intended for long-term or everyday use. The PAG does not affect EPA's drinking water standards for radionuclides. The drinking water PAGs were developed for up to one year of exposure.** In comparison, the Maximum Contaminant Levels (MCL) were developed assuming 70 years of continuous exposure. Water systems exceeding standards, regardless of the reason, are in violation. EPA expects that the responsible party for any drinking water system adversely impacted during a radiation incident will take action to return to compliance with Safe Drinking Water Act (SDWA) maximum contaminant levels as soon as practicable.

From Office of Water (OW), regarding the Bloomberg article:

This sentence, "In the event of a dirty bomb or a nuclear meltdown, emergency responders can safely tolerate radiation levels equivalent to thousands of chest X-rays, the Environmental Protection Agency said in new guidelines that ease off on established safety levels."

· According to the National Council on Radiation Protection and Measurements (NCRP), on average a U.S. resident receives an annual radiation exposure from natural and man-made sources of about 620 mrem. In contrast medical procedures for single exposure X-rays range from 1.5 mrem (for dental exposure), 10 mrem (for single chest exposure), up to 70 mrem (for pelvis exposure). **The 100 mrem PAG value would be equivalent to approximately 10 chest X-Ray exposures.**

This sentence, while correct could use some context, "Under the Safe Drinking Water Act, exposure limits are set at four millirem (or mrem) a year".

· The PAGs are developed for up to **one year of exposure**. In comparison, the Maximum Contaminant Levels (MCL) were developed assuming **70 years of continuous exposure**. The PAGs are intended to 1) prevent short-term health effects, 2) balance protection with other important factors that may arise during an emergency (ensuring the actions result in more benefit than harm) and 3) reduce the potential for chronic, or long-term, health effects.

This paragraph, "The Obama administration finalized a document in its waning days increasing the amount of radiation exposure in drinking water during an nuclear emergency to 500 mrem before emergency officials were required to provide bottled water or other alternative drinking water sources."

· The drinking water PAG provides information emergency officials can consider including two scientifically-based levels to be **avoided (100 mrem for infants, children aged 15 and under, pregnant women and nursing women; 500 mrem for anyone over age 15 excluding pregnant women and nursing women)** for periods up to one year. Since this is **only guidance**, the levels selected by state or local officials will depend on the type and severity of the incident.