

Citizens Research & Environmental Watch (CREW)
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CREW comments on

Proposed Federal Register Notice
Nuclear Regulatory Commission 10 CFR Part 20

Action: Draft Radiological Criteria for Decommissioning

There are several problems with the Draft Criteria for Decommissioning:

Overall, the NRC relies too much on the licensees themselves. The fox is put in charge of the chickens.

Neither the states nor towns, nor potential members of the SSAB committees have the resources to make measurements of contaminants. This means the public must rely on the licensee for measurements. This Draft even puts the licensees in charge of appointing and setting the rules of the SSAB committees.

This is completely unacceptable!

The public does not trust the licensees, who have an obvious financial conflict of interest. The public -- to some degree -- trusts the NRC to oversee the licensee. Yet in this Draft the NRC completely abdicates responsibility for making exact measurements, before, during and after decommissioning and for making sure that a really independent SSAB is set up.

1. The NRC says that estimates of past contamination will be based on past experience and past measurements.

Not acceptable: NEW measurements of all contaminants, both soil and water, as well as of buildings, must be made as part of an accurate site assessment. These measurements

must be made by the NRC, Brookhaven Lab, or ORAU. The most expensive, yet fairest, way to monitor would be to give citizens and state or local groups Technical Assistance grants so that we can hire our own independent labs to take measurements.

2. The NRC says that the SSAB committees will be both appointed by and its rules promulgated by the licensee.

Not acceptable: SSAB committees should be appointed by state boards of health or environment, with the other agency (either health or environment) making the ground rules of the committee. (Local Boards of Health, for example, can be easily manipulated to trust the NRC's or licensees' assurances.)

It is good that NRC mandates completely open meetings and that all interests should be represented.

However: NRC guidance is not strong enough regarding public access to licensee files. It must be clear that the public has access to *all* files about radionuclide measurement at the site -- not merely those which the licensee decides are relevant to decommissioning. *This would include all files regarding air emissions from stacks.*

3. In order to have true oversight and understanding, the public should be given both:

a) Technical Assistance Grants, to hire experts to aid citizens in interpreting data, and

b) New Testing, to be carried out by national labs Brookhaven and ORAU, to test extensively for contaminants on and *off site*, as part of the site characterization.

4. The 100 millirem "safety net" limit is totally unacceptable.

It would be as if the site were not decommissioned at all, since the public is already allowed exposure to that amount of contamination. It would be allowing fifty per cent over average background contamination (200 mrem/yr as estimated in BEIR V).

On page 61 you list 100 as the highest alternate possibility -- yet you have chosen this highest possible limit as the "safety net" to protect future generations!

Completely unacceptable! It is incredible to this citizen group that the NRC mentions 100 millirems of exposure above background in a proposal dealing with "decommissioning". As far as CREW is concerned, a site which radiates 100 millirems above background is not a decommissioned site.

5. Perhaps 15 millirems per year above background would be acceptable as a "safety net" if all provisions for restricting the site failed. It is not acceptable as a "limit". For the regulatory "limit" CREW insists that only "0" above background is acceptable.

6. This brings us to the artificial, indeed seemingly deliberately misleading, distinction between NRC's "goal" and NRC's "limit".

It seems to us that having a "goal" is meaningless. Only true legal "limits" have any meaning. And you have chosen as your "limit" that the public (or member of the critical group) may be exposed up to 15 millirems per year additional radiation above background.

This is too high! In light of the continuing conclusions of radiation researchers that ever lower levels of radiation can cause illness, CREW believes that all sites released for unrestricted use should be cleaned down to 0 above background levels of radiation.

For sites which cannot be cleaned down to background levels -- sites which would have restrictions on future use -- perhaps 3 millirems above background would be acceptable.

And for the "safety net" limit, after restrictions fail, (for, after a number of years, they will certainly fail, since we're talking about materials with half-lives of hundreds of thousands of years!) then the maximum limit should be no more than 15 millirems -- certainly not 100.

7. Alpha Contamination as a special category

CREW would like to point out that limits based on millirems -- i.e. based on computer models calculating exposure -- are not applicable to alpha contamination.

As you know, alpha particles are, in practice, impossible to measure. It is also impossible to accurately predict exposure to particles breathed or ingested, which is the greatest health risk posed by alpha particles. *For alpha contamination, the "limit" must be 0 above background.*

In the case of our own local licensee, Nuclear Metals, Inc. of Concord, MA, the "limit" must be 0 above background since the main radiological contaminant is U 238, an alpha emitter with a weak gamma ray.

8. Site Characterization: need for test wells

At no point do you call for test wells to measure ground water contamination. A number of (probably new) test wells should be drilled at all sites, both near contaminants and farther away to test ground water contamination and to see how far the plume is spreading and in which direction.

9. Site Characterization: need for "off site contamination" testing

At no point do you mention that neighboring property and water may have been contaminated in the course of a licensee's operations.

As part of the Site Characterization before Decommissioning, extensive soil, water, and structure testing should be undertaken on all neighboring property, as well as spot testing of other sites, after accurate wind modelling to see where such monitoring should be done.

Licensee should of course be financially liable for all off-site

contamination. Neighbors and municipalities should not be forced to sue to get compensated. It should be automatic -- part of the price of doing business for NRC licensees.

10. "The first 1000 years": Not long enough!

Plutonium, present at all nuclear plants, has a half-life of 24,000 years. Uranium has a half-life of 4.5 BILLION years. How can the NRC say that all we have to consider is the "first 1000 years" after decommissioning? This is nothing less than a crime against future generations.

The NRC should consider what would happen for the next hundred thousand years, at least. Of course we don't know about future earth quakes and volcanoes. But we must model as if they will happen occasionally.

Nuclear licensees should have thought of the impossibility of safely disposing of its nuclear wastes before it decided to use long lived materials. Now they must pay the price. The NRC's responsibility is to make sure they pay the full price of protecting future generations from its licensees' activities.

11. Public Participation before Decommissioning Plan is Approved

There should be a public hearing always before approval. Technical Assistance grants should be given to citizens' committees and towns to hire their own experts to evaluate the proposed plan and to bring these experts to testify at the hearing.

12. Protection of the public *during* Decontamination

CREW believes that inadequate thought has been given to all possible risk scenarios during clean-up. On p. 66 you talk of radiation exposure to workers and transportation accidents, but you don't mention possible releases of both radiological material

and other toxics *during clean-up.*

Specifically we are worried about contaminants driving out on truck tires, or *simply being blown about by wind.* This is a particular danger with alpha particle contamination.

We believe the NRC should always require a structure to be built over the contaminated site if there is material which could be blown about by the wind. All alpha contaminant removal should be done under a structure. Trucks would enter to load. Strict monitoring of trucks, truck tires, workers, etc. must be checked before leaving.

12. NRC oversight during Decommissioning

CREW is very unhappy with the idea that the NRC will be relying on the licensee to do the decommissioning job right!

We believe NRC needs to have its own inspectors on site to monitor that the job is done safely, according to plan.

It is absolutely unacceptable to merely trust licensees to see that everything is carried out to the letter.

13. Spot Monitoring should be performed, both on and off site for a number of years after Decommissioning has occurred, to make sure there is no residual contamination and that nothing was brought back on site. Several years should elapse before the site is released for unrestricted -- or even restricted -- use.

14. Clean-ups should not be planned to last years.

The longer a clean-up takes, the more likely that oversight will become lax and errors will be made. The longer a clean-up takes, the more contaminants will be allowed to blow onto neighboring property and the public will incur more risk.

For these reasons the shortest possible clean-up plans should be approved by the NRC.

For example, with Nuclear Metals, Inc. in Concord, MA originally the clean-up was to take only six months. That time length was acceptable. Now the company talks of several years! That time length is dangerous and unacceptable.

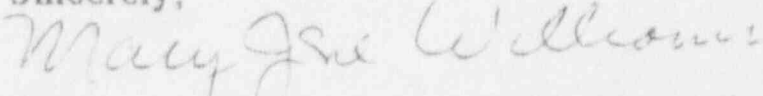
15. Fallout from nuclear accidents like Chernoble: The nuclear industry should be financially responsible for its fallout.

CREW notes that the definition of "background radiation" has been changed to exempt nuclear facilities from having to clean up fallout from nuclear accidents. Who but the nuclear industry has caused this fallout?

Thank you for considering our comments. We hope the NRC will seriously think about what we have said.

So many times the public gets the impression that "public comments" are considered by the regulatory agencies as merely a mechanism to allow the public let off steam. Afterward, the agencies seem to proceed as they already planned to do in the first place. Hopefully this will not be one of those times.

Sincerely,



Mary Jane Williams, Steering Committee
Member

Citizens Research & Environmental Watch