

EPA Review

Clean Air Act Section 112

40 CFR 61

National Emission Standard for Hazardous Air Pollutants NESHAPs

Subpart H

Brookhaven National Lab

The All-Inclusive Processing Hot Cells At Building 801



EPA DOE and BSA support BNL

- EPA works with DOE on many projects as part of the federal family.
- EPA has worked with the BNL and is involved on several fronts.
- The last NESHAP application approved by EPA was in 2009 for the Brookhaven Linac Isotope Production facility and several other authorizations are active.
- Required emissions monitoring is ongoing and reported in the annual NESHAP report that is sent to EPA.
- EPA is taking an openness position and partnering on engagement with state/local agencies and the public and was invited to present to the CAC.
- EPA will engage, be open, coordinate with DOE/BSA, while retaining its independent regulatory position representing the public interest as a steward of the environment.



Evaluation Process

- EPA is working with DOE Site Office (BHSO) and the Lab to develop a complete application meeting the requirements of the standards.
- EPA staff will have 60 days to complete review upon acceptance of a complete application.
- EPA will inform state and local agencies of our activities and actions.
- Consideration of factors under review includes the following:
 - 1. Appropriate air pollution controls
 - 2. Evaluation of the proposed operation including releases
 - 3. Emergency or accident conditions
 - 4. Environmental Justice to NY State identified communities
 - 5. Near site maximally exposed member of the public
 - 6. Tribal Communities nearby



NESHAP is an EPA rule

- Radionuclides are listed under CAA Section 112 and 40 CFR 61 promulgated to address this, specifically Subpart H applying to DOE facilities.
- Projects with a potential for airborne radionuclide emissions are evaluated (modeled) in accordance with 40 CFR 61 for the potential to cause a dose exceeding 0.1 millirem to the maximally exposed member of the public under the assumption no pollution controls are in place.
- If the modeled emission exceeds 0.1 mrem, EPA is required to review and approve (or deny) the application submitted from DOE.
- The standard (NESHAP) requires a complete application, stack sampling and analysis, offsite dose projection and annual reports to EPA.



ENVIRONMENTAL MONITORING

- Emissions from an individual source cannot be directly measured even relatively near the site boundary. For potential emissions (before a new emission source is created), EPA uses a computer model CAP-88 to estimate off-site dose.
- The model is used before EPA authorization to estimate offsite dose from actual emissions because concentrations of radionuclides from most emissions are so low that environmental monitoring is difficult.
- The model is applied annually by the site and reviewed by EPA based on measured emissions.



There is not formal public notice or open comment period.

Information at these links:

- <u>https://www.epa.gov/compliance/national-emission-standards-hazardous-air-pollutants-compliance-monitoring</u>
- <u>https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9</u>
- <u>https://www.epa.gov/haps/hazardous-air-pollutants-sources-and-exposure</u>



Conrad Sherman, CHP

Environmental Engineer | Health Physicist Air and Radiation Division | TECHNOLOGY, TRANSPORT & RADIATION BRANCH

Sherman.conrad@epa.gov

212-637-3245



