UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 1 2014

OFFICE OF POLICY

Dr. David T. Allen
Chair
Science Advisory Board
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Dr. Allen:

I want to thank you and the Board, for the January 29, 2014 letter to Administrator Gina McCarthy providing the results of your consideration of the U.S. Environmental Protection Agency's planned actions listed in the Spring of 2013 Unified (Regulatory) Agenda and of the supporting science behind these actions. I have been asked to respond on the Administrator's behalf. While the Science Advisory Board (SAB) concluded that it would not undertake review of the science supporting any of these actions in the semi-annual regulatory Agenda, it did make several important points with respect to its consideration that the EPA wishes to address.

In regard to the planned action entitled Revision of 40 CFR Part 192 – Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings (2060-AP43), your letter indicates that the SAB wishes to evaluate the science supporting the proposed rule after it is proposed. In particular, the Board would like a better understanding of how the SAB's Radiation Advisory Committee Comments (submitted on the earlier draft of the technical background document supporting the proposed rule) were addressed in the development of the final technical background document. The Agency will be pleased to provide the Board with an informational briefing on this question.

In regard to the action entitled "Standards for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generation Units (2060-AQ91)", the EPA agrees that protection of human health and the environment across all media is necessary for carbon capture and storage (CCS) to be a viable climate mitigation option. For over a decade, the EPA has been working with other federal agencies, particularly the Department of Energy, and the research community (including the EPA's researchers) to evaluate both the safety and security of geologic sequestration. The EPA sponsored multiple technical workshops with federal agencies, national laboratories, states, academicians, industry and public stakeholders who were experts in fields related to geologic sequestration, on topics such as modeling and reservoir simulation, risk assessment, site characterization, state regulation, well construction and mechanical integrity testing, geologic setting and area of review, and measurement, monitoring and verification. The EPA has also supported research grants on integrated design, modeling, and monitoring of geologic sequestration to safeguard sources of drinking water. This research furthers the understanding of sound

risk management strategies, including approaches for integrating design, siting, modeling and monitoring that can provide safe and effective storage, mitigate potential risks, and prevent endangerment of existing and potential sources of drinking water.

Using existing statutory authority, the EPA has put into place a regulatory framework to ensure that large scale CO_2 is safely stored. The EPA developed regulations under the Safe Drinking Water Act's (SDWA) Underground Injection Control (UIC) program to protect human health and the environment and underground sources of drinking water (USDWs). These regulations are based on 35 years of federal experience regulating underground injection, and many additional years of State UIC program expertise. The rule for Carbon Dioxide Geologic Sequestration Wells (2010) was carefully tailored to address unique considerations associated with CO_2 injection for geologic sequestration and was designed to ensure that Class VI injection wells used for geologic sequestration of CO_2 are appropriately sited, constructed, tested, monitored, and properly closed at the completion of the project. Using Clean Air Act Authority, the EPA also developed monitoring, reporting, and recordkeeping requirements for CO_2 capture, underground injection, and geologic sequestration. Together these requirements help to ensure that appropriate actions are taken to protect human health and the environment and should allow the EPA to monitor progress towards ensuring long-term safe CO_2 sequestration.

We also have appreciated SAB's engagement on the issue at its August 16, 2010 teleconference when the EPA provided the SAB with background information and an update on the progress of rule development related to geologic sequestration. The EPA will continue to monitor technological progress on geologic sequestration as the regulations, which contain specific monitoring and operational requirements, are implemented. The EPA also will continue to work with other agencies, researchers, and industry to ensure that our regulations are based on the best available science. The EPA would be pleased to provide a briefing on these activities and periodically update the SAB on the status of its geologic sequestration regulations, ongoing permitting, and collaboration with DOE and other agencies.

Finally, with respect to improving the processes for future review of the semi-annual regulatory agenda, the EPA's SAB Staff Office, in coordination with other relevant EPA offices, will work to further identify and improve the delivery of information needed for the Board's deliberations. Thank you again for the Board's continued work in support of Agency science.

Sincerely,

Joel Beauvais
Associate Administrator

cc: Christopher Zarba
Janet McCabe
Nancy Stoner