

Atmospheric Deposition of Pollutants

15 MR. EHRMANN: Okay. Very good. Let's
16 then go to the atmospheric deposition topic.

17 (Slide.)

18 COMMISSIONER SANDIFER: This is one that I
19 did not personally get to spend a lot of time on
20 because I was doing something else during the
21 meetings. I was actually on the Hill. So bear with
22 me as I work through this.

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1 One of the more interesting linkages that
2 apparently is not very well made to the public in
3 most localities is a linkage between atmospheric
4 pollution--that is, emissions that go into the air--
5 and water quality impairment.

6 In many cases, it is nitrogen and a
7 variety of toxins that go into the air and then come
8 out into waters. And in fact, there is a fair amount
9 of information to suggest that from 10 to 40 percent
10 of what is termed "new nitrogen loading" in the East
11 Coast and Gulf of Mexico estuarine to coastal waters
12 is a result of atmospheric deposition.

13 There is also considerable literature now
14 in the last several years on the contribution of
15 atmospheric loading to mercury contamination,
16 particularly in fish products that many of us like to
17 consume, with the result that as of a few weeks ago
18 the State of California imposed new requirements on

19 food stores that they had to post health warnings at
20 the fish counter for consumption of fishery products
21 that might contain mercury.

22 So it is the sort of thing where there's

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1 been a complete disconnect in the public's mind in
2 general between air pollution or emissions to the air
3 and what comes out of the water. But it is something
4 that is much more substantial than most people would
5 imagine.

6 Therefore, we have dealt with it, and Dr.
7 Muller-Karger has been one who has raised this to our
8 attention on several occasions, and appropriately so.

9 The recommendations are for the Commission
10 to urge the EPA to reduce emissions of nitrogen and
11 toxins using available vehicles, both through the
12 Clean Air Act and the Clean Water Act, and urge the
13 Congress to amend the Clean Air Act to require
14 significant reductions of nitrous oxide, sulfur
15 oxides, and mercury for the express purpose of
16 protecting water quality and related concerns.

17 Now we know that this would be

18 controversial, and we have not set specific standards
19 at this point. But I do believe that it is important
20 for us to set the case that these emissions result in
21 very significant forms of water pollution, and all
22 that we do to control land-based nonpoint source

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1 discharges will not eliminate the problems,
2 particularly with things like mercury, if we do not
3 approach this area as well. Move to the next slide.

4 (Slide.)

5 We would urge the EPA, the state
6 Department, and others involved in international
7 efforts to address international air pollution. Some
8 of you who perhaps saw recent news reports in the
9 scientific literature, there is a pretty good
10 documentation now that air pollution that's generated
11 on Mainland China has had impacts on water quality in
12 Western States of the United States. There are
13 fairly good signatures apparently to demonstrate
14 this. So it is the sort of thing that needs some
15 significant attention in the international arena.

16 Moving from the international arena to the
17 state level:

18 To encourage states to enact and implement

19 state laws to regulate in-state air emissions for the
20 purpose of protecting water quality.

21 In most cases, again, the emissions things
22 have to do with air quality standards. They really

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1 don't move far enough along to deal with the water
2 quality standards, and I think what we are after is
3 trying to make sure that, from the international to
4 national and state levels, people become appreciative
5 of and regulatory mechanisms take into account the
6 impacts of air emissions on water quality.

7 And finally, to encourage the EPA and
8 others in educating about atmospheric deposition of
9 pollution. This is a significant element. I started
10 out my presentation on this, a review on this topic,
11 suggesting to you that the public really knows very,
12 very little about it. This is an extremely important
13 area to link water and air, and for the Ocean
14 Commission to link oceans and atmospheres.

15 I'll stop there.

16 MR. EHRMANN: Thank you. Admiral Gaffney?

17 COMMISSIONER GAFFNEY: I'll admit I wasn't
18 in the room for this one, either, but it is a pretty

19 interesting one.

20 COMMISSIONER SANDIFER: Was anybody in the

21 room?

22 (Laughter.)

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1 COMMISSIONER GAFFNEY: Unlike water
2 monitoring and observing systems, there happens to be
3 a very good infrastructure for atmospheric observing
4 and modeling.

5 I think we just have to make sure that
6 that system is actually monitoring these constituents
7 that we're worried about. It ought to be part of the
8 whole integrated ocean observing system.

9 You may find that the real problem in
10 Chesapeake Bay in the summertime is atmospheric
11 deposition and nonpoint source pollution for the
12 Susquehanna River, or bad fishing practices by guys
13 that live in Chesapeake Bay. We don't really know
14 that yet.

15 So this really I think begs for monitoring
16 and good scientific analysis.

17 MR. EHRMANN: Any other comments on this
18 topic?

19

COMMISSIONER SANDIFER: That's an

20

excellent point. Staff's got it.