CONFIDENTIAL DISCUSSION DRAFT 3/31/2009

IN THE CIRCUIT COURT FOR GARRETT COUNTY

DOUGLAS F. GANSLER,	*	
ATTORNEY GENERAL OF THE		
STATE OF MARYLAND	*	
Office of the Attorney General		
200 St. Paul Place	*	
Baltimore, Maryland 21202,		
	*	
and		
	*	
STATE OF MARYLAND		
DEPARTMENT OF THE	*	
ENVIRONMENT		
1800 Washington Boulevard	*	Case No._____
Baltimore, MD 21230		
	*	
Plaintiffs,		
	*	
v.		
	*	
PPG INDUSTRIES, INC.		
One PPG Place	*	
Pittsburgh, Pennsylvania 15272		
	*	
Defendant.		
	*	

* * * * * * * * * * * * * *

COMPLAINT FOR NUISANCE AND TRESPASS

Plaintiffs, Douglas F. Gansler, Attorney General of the State of Maryland, and the Maryland Department of the Environment ("MDE"), on behalf of the citizens of the State of Maryland and by the undersigned counsel, bring this action to abate a public and private

Summary of Comments on Draft Complaint-3_31_09

This page contains no comments

nuisance and a trespass to Maryland property that endangers the health, safety, and environment of the citizens of the State of Maryland, and state the following:

Nature of the Action

1. PPG Industries, Inc. ("PPG") owns a facility in Natrium, West Virginia, that, since 1957, has released mercury into the air and water as part of the facility's production of chlorine and other chlor-alkali chemicals. Mercury is a hazardous neurotoxin harmful to humans if ingested. It is known to cause loss of cognitive ability, stunted mental growth, and death. PPG is or should be aware of the health and environmental hazards of mercury emissions.

2. The mercury-based production process at the Natrium facility employs an outdated and unsafe technology. This process remains in use at only four of the 119 chlorine production facilities in the United States. Most chlorine production facilities, including others that PPG owns, exclusively use mercury-free technology that achieves greater production efficiency without the harmful effects of mercury. In 1990, PPG converted its Beauhamois, Canada plant to mercury-free technology, increasing its capacity to 88, 000 tons of chlorine per year. PPG is currently converting its Lake Charles, Louisiana facility from a partial mercury-cell process plant, like the Natrium facility, to a completely mercury-free technology. PPG has failed, however, to convert its Natrium facility fully to the safer, industry-standard technology.

Page: 2

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:12:08 PM

Later on in the document, there is lots of good explanation about methylmercury. The statement here just says "mercury"... Not sure if its important to deal with this nuance here or not...

Plain old elemental mercury -- the kind of mercury that PPG primarily emits -- is also a toxin, but it is much less toxic than methylmercury.

As stated below, the biggest threat is when mercury emitted from sources like PPG is converted to methylmercury. This usually happens after it deposits and happens to end up in aquatic sediments, and then the methylmercury bioaccumulates in the food chain. When people eat fish with high levels of methylmercury, that is the main public health concern.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:03:07 PM

...from xx tons to...

or ... by xx% to...

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:09:56 PM

If PPG-Natrium is partly *not* mercury, then perhaps useful to say this somewhere. That is, if some of the chlor-alkali production at the plant is carried out via a different process, a few details could be mentioned (e.g., fraction of the production by each process, when the partial conversion took place). But, it is understood that this information may not be readily available, and it is not crucial in any case.

3. PPG's Natrium facility sits on the Ohio River, approximately 120 miles west of the West Virginia/Maryland border. The facility emits airborne mercury that is carried by prevailing winds into Maryland and deposited into the waters of Maryland, particularly in western Maryland. These mercury deposits adversely impact human health and environmental quality in Maryland.

4. PPG's mercury-based production of chlor-alkali chemicals at the Natrium facility directly endangers the public health, safety, comfort, and convenience of Maryland's citizens, thereby creating a public nuisance under the law of West Virginia. Abatement of this public nuisance is necessary to prevent further damage to Maryland's environment and to the health, safety, comfort, and convenience of Maryland citizens.

5. In addition, PPG's actions at the Natrium facility are an unreasonable use of land that causes substantial interference with Maryland State property by impairing its use for fishing and hunting, thereby creating a private nuisance. Abatement of this private nuisance is necessary to prevent further diminution of the use of Maryland State property.

6. Finally, PPG's actions at the Natrium facility have caused a continuing entry onto Maryland State property through the wet and dry deposition of mercury, diminishing the productivity of Maryland State property by impairing its ability to support fish and other wildlife fit for human consumption, and thereby causing a trespass. Abatement of this trespass is necessary to prevent further harm to Maryland State property.

Page: 3

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:35:51 PM

you might want to define "wet" and "dry" deposition somewhere in the document. "Wet" deposition of mercury is that which occurs as a result of precipitation (e.g., mercury in rain or snow that falls to the ground). "Dry" deposition of mercury occurs when mercury compounds in air come in contact with the terrestrial surface (plants, dirt, water, etc.) and "stick" to the surface (e.g., are absorbed or adsorbed).

The Parties

7. Plaintiff Douglas F. Gansler is the Attorney General of the State of Maryland, a sovereign state that holds the land, air, water, and natural resources within its borders in trust for the citizens of Maryland. Pursuant to Article 5, § 3(a)(2) of the Maryland Constitution, the Governor of the State of Maryland has directed the Attorney General to bring this action.

8. Plaintiff MDE is a State agency within the Executive Branch of the State of Maryland, as described in Subtitle 2 of Title 8 of the State Government Article of the Maryland Code. MDE is charged with the responsibility and duty of protecting the waters and land of the State from unreasonable pollution.

9. Defendant PPG is a major international manufacturer of paints and coatings, commodity chemicals, silicas, glass, optical products, and other products. PPG has its headquarters in Pittsburgh, Pennsylvania. In 2007, PPG's sales exceeded $11 billion, and it realized $834 million in net income.

10. PPG's products include chlor-alkali and derivatives for construction, consumer products, industrial and transportation markets, and aftermarkets. PPG's Natrium facility produces calcium hypochlorite sulfur chemicals, chlorine liquid caustic soda, chlorobenzenes muriatic acid, and PELS caustic soda as intermediate chemicals used in the production of detergents, plastics, and other consumer goods, including PPG's own Pittsburgh Paints. PPG markets and sells products manufactured at the Natrium Plant in the State of Maryland.

Page: 4

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:16:57 PM
are "calcium hypochlorite" and "sulfur chemicals" different products? if so, need a comma here...

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:14:56 PM
need a comma after chlorobenzenes, I think, unless this is part of the muriatic acid product name

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:17:52 PM
need a comma here, too, in between chlorine liquid (maybe better to say liquid chlorine) and caustic soda

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:15:31 PM
what is PELS (probably best to spell out acronym...)

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11. PPG and its affiliates also conduct business in Maryland through facilities including: a facility in Glen Burnie, for which PPG obtained an operating permit from the Maryland Air Radiation and Management Administration ("ARMA"), a facility in Cumberland, involving hazardous waste monitored through MDE's Land Restoration Program, and a facility in Baltimore, for which PPG also obtained an ARMA permit. In addition, PPG and its affiliates own and pay taxes on property in Glen Burnie, Williamsport, Salisbury, Baltimore, and Forestville, Maryland. PPG's Maryland resident agent is located in Baltimore City.

Jurisdiction and Venue

12. This Court has subject matter jurisdiction pursuant to Md. Code Ann., Cts. & Jud. Proc. §§ 1-501, 3-403, and 3-409. The Court has personal jurisdiction pursuant to Md. Code Ann., Cts. & Jud. Proc. § 6-103(b)(4), as PPG causes tortious injury in Maryland through mercury emissions from its Natrium facility in West Virginia, and regularly conducts business in Maryland through its marketing and sale of the chemicals produced in PPG's Natrium facility, the marketing and sale of Pittsburgh Paints, which contain chemicals produced in PPG's Natrium facility, the marketing and sale of other products and services in Maryland, and its facilities and properties located in Maryland for which PPG pays Maryland taxes.

13. Venue in this Court is proper pursuant to Md. Code Ann., Cts. & Jud. Proc. § 6-203(b)(1)(iv), because a portion of the subject matter of this action, namely real property subject to trespass by PPG's mercury emissions, is located in Garrett County. *See also Dep't of Forest and Parks v. George's Creek Coal*, 250 Md. 125, 138-40 (1968).

Allegations

A. The Hazards Of Mercury.

14. Mercury is an invisible, odorless poison that can pollute air, oceans, and rivers and contaminate food, potentially causing severe health problems when ingested by humans. The United States Environmental Protection Agency ("EPA") classifies mercury as a potent neurotoxin. According to the EPA, mercury exposure can cause damage to the brain, heart, kidney, lungs, and immune system in humans of all ages. Prenatal and infant mercury exposure threatens the developing brain and nervous system, which can result in cerebral palsy, deafness, and blindness. Exposure to mercury from eating contaminated fish can lead to a number of neurological problems in children, including learning disabilities, attention disabilities and mental retardation. In adults, the health effects from exposure can range from subtle loss of sensory and cognitive abilities to tremors, inability to walk, and death.

15. Mercury poses a significant environmental and health problem due in part to its tendency to accumulate in the food chain at a rate higher than it can be metabolized by fish and other wildlife. The concentrations of methylmercury in larger, predatory fish can be over

Page: 6

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:20:47 PM
Maybe best to talk about methylmercury here, rather than just "mercury"

a million-fold larger than in the surrounding water. EPA, "Human Exposure," *available at* http://www.epa.gov/mercury/exposure.htm (last accessed January 12, 2009). There is evidence that the endocrine systems of fish can be altered by exposure to methylmercury, affecting their ability to reproduce. Other wildlife that consume fish as a part of their diet, or prey on animals that mainly eat fish, can similarly concentrate high levels of methylmercury in their tissues. The EPA has concluded that high methylmercury concentrations can harm wildlife populations. EPA, "Mercury Study Report to Congress, Vol. VII: Characterization of Human Health and Wildlife Risks from Mercury Exposure in the United States" (1997). Effects of methylmercury exposure on wildlife include death, behavior change affecting survival, reduced fertility, and slower growth and development. EPA, "Environmental Effects," *available at* http://www.epa.gov/mercury/eco.htm (last accessed January 9, 2009).

16. Mercury occurs naturally and some mercury is emitted into the air through volcanoes, wildfires and other natural processes. However, worldwide anthropogenic emissions, or emissions from human sources, double the amount of mercury released into the air. United Nations Environmental Program Mercury Programme, "Global Atmospheric Mercury Emissions Assessment: Sources, Emissions and Transport Draft Executive Summary," *available at* http://www.chem.unep.ch/mercury/Atmospheric_Emissions/Atmospheric_emissions_mercury.htm (last accessed January 9, 2009). Anthropogenic activity releases mercury into the environment by combustion and other industrial processes,

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such as the production of chlorine at mercury cell chlor-alkali plants like the Natrium facility. Once mercury enters the atmosphere, it eventually deposits onto the earth and into water through wet or dry deposition. Because there is a baseline of natural mercury emissions that cannot be eliminated, regulation of anthropogenic activity is the only avenue to reduce the exposure of humans and wildlife to the harmful effects of mercury and methylmercury exposure.

B. Mercury Emissions From Chlor-Alkali Facilities.

17. Chlorine is a chemical building block used in a variety of manufactured items, from plastic products to paper towels to chemical treatments for swimming pools. The chlor-alkali, or chlorine, industry manufactures chlorine gas and caustic soda (or lye) from sodium chloride (salt or brine). These products serve as intermediate chemicals for various industrial processes, including the production of paper, soap, detergent, vinyl chloride, PVC pipes, and other plastics and consumer products.

18. Nearly all chlor-alkali facilities in the United States and around the world use a technology called "membrane cell process" to manufacture chlor-alkali. This process does not use mercury and does not emit mercury into the air.

19. A handful of facilities, including the Natrium facility, still use an older, outdated technology know as "mercury cell process," which employs large amounts of mercury and results in significant emissions of mercury into the air. The mercury cell

Page: 8

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:24:31 PM
The first sentence and last sentence of this paragraph are sort of duplicative, and could possibly be combined somehow.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:25:01 PM
the

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:25:23 PM
the

process is currently used at just 4 out of the 119 operational chlor-alkali facilities in the United States – approximately 3%.

20. In 1894, the mercury cell process was devised to produce chlorine by pumping a saltwater solution (brine) through a vat of mercury (a "mercury cell"), thereby catalyzing an electrolytic chemical reaction. This process uses cells containing thousands of pounds of mercury to conduct the electrical charge that extracts chlorine from the brine. Each mercury cell may contain as much as three tons of mercury, and mercury facilities typically have approximately 100 mercury cells. Even though only a handful of plants continue to use the mercury cell process, the chlor-alkali industry is still the largest industrial user of mercury in the United States. EPA, "EPA's Roadmap for Mercury Executive Summary," *available at* http://www.epa.gov/mercury/executivesummary.htm (last accessed January 12, 2009).

21. As an inevitable and well-known part of the chlor-alkali production process, mercury cell facilities "lose" mercury. Mercury can leak into the manufacturing plant or the surrounding environment or leave the plant in the form of waste or residue. Because the chlor-alkali manufacturing process does not consume mercury – it uses mercury only to conduct an electric current – mercury cell facilities need to replenish their mercury supply to replace mercury that is lost in one of these ways.

22. Some of the mercury lost as part of the mercury cell production process finds its way into consumer products, increasing human exposure to mercury. Recent studies have

Page: 9

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:35:13 PM

Its not relevant here but it may be interesting to note that when this process was developed in the Niagara Falls area in the 1890's -- due to the availability of hydro-electric electricity there -- most or all of the chlorine was just dumped into the Niagara River, as there weren't a lot of uses for it back then. It was only when chlorinated chemical production was "discovered" (e.g., PVC) starting I think in around the 1920's that chlorine started to be more of an actual product rather than just an unavoidable waste product.

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found widespread mercury contamination in food products containing high-fructose corn syrup, which is produced using caustic soda.

23. As the chlor-alkali industry adds new facilities and additional capacity, it has moved away from mercury cell production and toward a membrane cell process that does not use mercury but produces high-grade caustic soda and other products that are comparable to those produced with mercury cell technology. In addition, a third production process uses a diaphragm to produce caustic soda suitable for some industrial applications. This process also is mercury-free.

24. The membrane cell process, in particular, entails similar or slightly lower costs than mercury cell production, and does not involve environmental harms similar to those associated with the mercury cell process. Chlor-alkali production facilities that were converted entirely to the membrane cell process have experienced up to a 37% increase in efficiency and 80% increase in production over facilities using the mercury cell process. The "membrane grade" caustic soda produced using the membrane cell process is very pure, and can be used for the same commercial applications as "mercury grade" caustic soda. Rayon manufacturing, for instance, requires high-grade caustic soda; Indian rayon plants use caustic soda manufactured by the membrane cell process.

25. Only a small number of facilities around the world, including PPG's Natrium facility, continue to employ mercury cell technology. In this country, the EPA prohibits new

or reconstructed chlor-alkali production facilities from emitting any mercury. 40 C.F.R. § 63.8190(a)(1) (2003). No mercury cell plant has been constructed in this country since 1970. Approximately 90% of chlor-alkali facilities in the United States have replaced mercury cell production with cleaner, mercury-free technologies. Many countries have taken steps to end use of the mercury cell production process. In Japan, all mercury cell chlor-alkali production was phased out by 1987. In 2001, the European Commission identified converting mercury cell production plants to membrane cell technology as a best available technique ("BAT") in the chlor-alkali industry. All chlor-alkali plants in Portugal, Norway, and Ireland already use mercury-free technologies. Belgium, Finland, the Netherlands, and Sweden plan to phase-out mercury cell production by 2010. In India, chlor-alkali plants are being converted to membrane-cell technology by 2012.

C. PPG's Mercury Emissions From Its Natrium Facility.

26. In 1957, PPG installed the initial mercury cell at its Natrium facility. Since then, the Natrium facility has been continuously emitting mercury into the environment. From 1987 to 2004, the Natrium facility emitted more than 1,200 pounds of mercury into the air *annually*.

27. As of 2002, PPG's Natrium plant was the twelfth largest source of mercury air pollution in the United States, and one of the country's 30 largest sources of mercury pollution of any kind. That year, PPG released 1,233 pounds of mercury into the air and 34

Page: 11

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:40:30 PM

On page 9, it was stated that only about 3% of all US plants use mercury. That statistic and this 90% one are not necessarily inconsistent, but it seems at first glance that they might be. If there is an inconsistency here, then it can be fixed. If not, then maybe it can be explained a tiny bit more.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:42:30 PM

Do you need to state where this >1200 lbs/yr estimate came from? Was each year more than 1200 lbs or was the average more than 1200 lbs?

pounds into the water at the Natrium plant, and disposed of 900 additional pounds of mercury from the Natrium facility in landfills. Of the Natrium plant's air emissions of mercury, 1,045 pounds originated from emissions not contained by a capture system, such as through equipment leaks, evaporative processes, or windblown disturbances ("fugitive emissions"), while 188 pounds were released as stack emissions. According to a February 2005 EPA report, although the Natrium facility is the second smallest chlor-alkali plant in the United States in terms of production, it is the second largest in terms of mercury air emissions.

28. The EPA requires mercury cell facilities to track and report their mercury losses in a Toxics Release Inventory ("TRI"). The TRI contains data on fugitive emissions as well as "point source" emissions of mercury. Point source emissions are identified points in the manufacturing process where mercury is emitted into the air. In 2006, the Natrium facility reported that it released 306 pounds of mercury into the air from combined fugitive and point source emissions. Envirofacts Report for "PPG Industries Incorporated," *available at* http://oaspub.epa.gov/enviro/multisys2.get_list?facility_uin=110000875367 (last accessed October 29, 2008). In 2007, the Natrium facility reportedly released 200 pounds of mercury into the air from combined fugitive and point source emissions. Toxics Release Inventory 2007 Form R Reports for "PPG Industries, Inc.," *available at* http://oaspub.epa.gov/enviro/tri_formr_partone_efdr.get_thisone?rpt_year=2007&dcn_num=1307205957715&ban_flag=Y (last accessed November 5, 2008).

Page: 12

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:48:25 PM

Is it known why the emissions seem to have declined? If so, this could be explained. For example, did they partially convert to a mercury-free process and did this lead to the significant reduction in emissions?

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29. The Natrium mercury-cell process facility emits atmospheric mercury from areas including its mercury cell chlorine production area, its industrial boilers, and its chlorine and hydrogen degas systems. The plant's mercury cell chlor-alkali production process also generates wastewater contaminated with mercury and dissolved solids.

30. From October 2005 to March 2006, EPA identified the Natrium facility as a "high priority violator" under the Clean Air Act (CAA), 85 U.S.C. § 1401 *et seq.* EPA IDEA Query Results for "PPG Industries Incorporated," *available at* http://www.epa-echo.gov/cgi-bin/get1cReport.cgi?tool=echo&IDNumber=110000875367 (last accessed October 29, 2008). Over the past six years, the Natrium facility also has been repeatedly in violation of the Resource Conservation Recovery Act ("RCRA"), 42 U.S.C. § 6901 *et seq.*, including at a minimum during the periods October 2002 to January 2005, and January to June 2007.

31. The facility also has been in violation of the Clean Water Act, 33 U.S.C. § 1251 *et seq.*, including at a minimum during the periods April 2003 to January 2004, and July 2006 to December 2007. In 2006, the West Virginia Environmental Quality Board found that PPG's Natrium facility was in gross violation of West Virginia and federal law for exceeding discharge limits on mercury releases into the Ohio River on at least 47 occasions. In 2007, the Natrium facility released 30 pounds of mercury directly into the Ohio River. Toxics Release Inventory 2007 Form R Reports for "PPG Industries, Inc.," *available at*

http://oaspub.epa.gov/enviro/tri_formr_partone_efdr.get_thisone?rpt_year=2007&dcn_num=1307205957715&ban_flag=Y (last accessed November 5, 2008).

32. PPG recently converted its chlor-alkali facility in Louisiana, which is three times the size of the Natrium facility, to the mercury-free membrane cell production process. This conversion followed similar plant investments in 1988 and 1990, when PPG converted its chlor-alkali facilities in Taiwan and Canada, respectively, to mercury-free technologies. After conversion, PPG's facility in Taiwan increased production by approximately 50%, and PPG's facility in Canada increased energy efficiency by approximately 35%. Nevertheless, and despite the facts that the modern mercury-free process already is used for part of the Natrium facility's production and PPG knows or should know of the health and environmental dangers associated with its mercury emissions, PPG has failed to convert its Natrium Facility fully to the safer process.

D. Mercury Contamination in Maryland.

33. Annual mercury concentrations in Maryland register an average of 95 grams per square kilometer, higher than in most states. According to EPA data on mercury deposition, Maryland ranks among the states most severely affected by concentrated mercury. As a result of mercury deposition in Maryland, including deposition of mercury emissions from the Natrium plant, waters throughout Maryland are designated as impaired because of mercury concentrations in fish tissue. The problem is particularly acute in western Maryland,

Page: 14

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 1:53:31 PM

This statistic needs to be clarified and checked.

First, are you saying that this is the annual mercury deposition? If so, then I think this is too high -- the total atmospheric deposition it is probably only on the order of 20-50 g/km2.

If you are not talking about atmospheric deposition here, then you need to say what you are referring to. But I don't think I know what you could be referring to besides atmospheric mercury deposition.

I think you want to say something like "Annual atmospheric deposition of mercury in Maryland averages approximately xx grams per square kilometer, higher than in most states."

where virtually every freshwater lake or impoundment is impaired. Mercury concentrations in fish tissue in Deep Creek Lake, Savage River Reservoir, and Big Piney Reservoir average almost double safe concentrations.

34. Because of mercury pollution in its waters, Maryland has a statewide consumption advisory for small and largemouth bass, pickerel, northern pike, walleye and sunfish, including bluegill. Among the most strict advisories are for waters in western Maryland where consumption of small and largemouth bass is limited to only once per month. In addition, a consumption advisory for yellow perch applies to waters in western Maryland.

35. The EPA has approved total maximum daily load ("TMDL") limits for mercury in Deep Creek Lake, Savage River Reservoir, Big Piney Reservoir, and other Maryland water bodies. EPA issues TMDLs to bring impaired water bodies into compliance with water quality regulations. The TMDL documents for Deep Creek Lake, Savage River Reservoir and Big Piney Reservoir identify atmospheric deposition as the source of mercury impairment; there are no known point sources of mercury in the watersheds. In 2002, 52.09 grams of mercury were deposited in Big Piney Reservoir and the surrounding watershed. In order to attain Big Piney Reservoir's TMDL of 15.34 grams per year, mercury deposition to the reservoir must be reduced by 70%. Savage River Reservoir and Deep Creek Lake require similar reductions in mercury deposition.

Page: 15

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:02:10 PM
For all fish? Probably just for some types of fish. This probably should be clarified.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:00:44 PM
Note that I did modeling for the Savage River Reservoir, too, and the total modeled deposition (from U.S. and Canadian anthropogenic sources in 1999) to the reservoir itself was 15.6 grams, and the total modeled deposition to the watershed was 2.11 kilograms. The Natrium facility was modeled to contribute 0.27% of the total reservoir deposition and 0.26% of the total watershed deposition. These percentages are very similar to those for Deep Creek Lake.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:06:15 PM
The definition of "safe concentration" varies from jurisdiction to jurisdiction, and there is also the issue of "safe for who?", i.e., women of child bearing age are much more restricted in the amount of mercury that they can consume without risking damage to their children.

Perhaps what could be said is the levels in some fish average above the level at which consumption advisories must be imposed.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:06:34 PM
is it smallmouth and largemouth bass?

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:07:09 PM
for all people or for women of child-bearing age?

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:08:12 PM
and watershed

36. Maryland has taken legal, legislative, and regulatory action to reduce in-State mercury pollution. As of 2006, power plants and cement production plants produced most of the mercury air emissions from Maryland sources. That year, the General Assembly enacted Maryland's Healthy Air Act, Md. Code Ann., Env. § 2-1001 through -1005, which imposed strict limits on power plant air emissions. Regulations implementing the Healthy Air Act require an 80% reduction in mercury air emissions from Maryland power plants by 2010 and a 90% reduction by 2013. Maryland, moreover, joined in litigation challenging an EPA rule that exempted major cement production facilities from mercury air emissions regulation. The resulting settlement required the EPA to issue a proposed rule regulating mercury air emissions from all cement kilns by March 31, 2009, and to make a final decision adopting regulations within the year.

37. Due to prevailing winds from the west, much of the mercury pollution in Maryland comes from West Virginia. The Natrium facility lies 120 miles west of the Maryland border. Mercury emissions can travel across continents, but according to an EPA study, the majority of airborne mercury is deposited within 400 miles from its source. Furthermore, approximately four-fifths of the mercury emitted by chlor-alkali plants is deposited (by wet and dry deposition) outside a 31-mile radius. EPA, "Mercury Study Report to Congress, Vol. III: Fate and Transport of Mercury in the Environment," Table 5-15

Page: 16

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:10:20 PM
Not sure if you can say "much" here... Maybe can say "a significant amount" or something like that. "Much" means more than half, I think, and I doubt if its that much.

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:12:29 PM
This is somewhat problematical... For emissions of elemental mercury, the distance is probably farther. This may be an average weighted by the different amounts and kinds of mercury emissions (elemental, reactive gaseous mercury and particulate mercury).

Author: Mark Cohen Subject: Sticky Note Date: 4/17/2009 2:14:37 PM
There have been other studies and/or estimates that probably gave different results here... But I guess its ok to use this as an example. The key point is that not all of the mercury is deposited locally, and that some can make it to MD before it deposits...

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(1997). Maryland thus sits in the target zone of the Natrium facility's airborne mercury pollution.

38. Mercury that PPG emits into the air at the Natrium plant is deposited in Maryland (and other States outside West Virginia), and these deposits materially contribute to mercury pollution in Maryland. Indeed, just one gram of mercury, or 1/70th of a teaspoon, is sufficient to contaminate a 25-acre lake to the point that fish in the lake are unsafe to eat. National Wildlife Federation, "Clean the Rain, Clean the Lakes," 6 (1999) *available at* http://www.epa.gov/bns/mercury/merclean99.pdf, *last accessed* (January 12, 2009).

39. PPG's Natrium facility has polluted Maryland's air, land, and water with mercury, contributing to hazardous conditions throughout the State. Mercury from this facility has deposited in recreational, residential, and commercial areas of Maryland. It has deposited in State parks, Maryland watersheds, and on Marylanders' property, injuriously affecting the public health of Maryland's citizens and creating a hazard to Maryland's environment. Mercury deposition from the Natrium plant has damaged Maryland's natural resources and State property and, in combination with other sources of mercury deposition, has substantially interfered with the use of State property intended for fishing and recreation.

40. The State of Maryland and MDE have incurred, and continue to incur, substantial expenses for activities to mitigate the harmful effects of airborne mercury, including: studying Maryland watersheds affected by mercury contamination; testing fish

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and shellfish tissue throughout the state; developing fish consumption recommendations; and educating the public about the dangers of elemental mercury and safe levels of fish consumption. The State of Maryland also has incurred increased health care and educational costs due to the human health effects of airborne mercury pollution from the Natrium facility and other sites.

CAUSE OF ACTION

Count I: Public Nuisance

41. The Plaintiffs re-allege and incorporate each of the allegations in the foregoing paragraphs.

42. In nuisance actions for pollution abatement in which the source of pollution is located outside the affected state, the law of the source-state applies. *International Paper Co. v. Ouellette*, 479 U.S. 481, 497-99 (1987). Under West Virginia law, a public nuisance "is an act or condition that unlawfully operates to hurt or inconvenience" the "general public." *Duff v. Morgantown Energy Assocs.*, 187 W. Va. 712, 716 (1992) (quoting *Hark v. Mountain Fork Lumber Co.*, 127 W. Va. 586, 595-96 (1945)). This definition is consistent with the Restatement (Second) of Torts § 821B(1) (1979), which defines public nuisance as "an unreasonable interference with a right common to the general public." *Id.* at 716 n.6.

43. Circumstances indicating that an interference with a public right is unreasonable include conduct that "involves a significant interference with the public health,

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the public safety, the public peace, the public comfort or the public convenience." Restatement (Second) of Torts § 821B(1) (1979); *State ex rel. Smith v. Kermit Lumber & Pressure*, 200 W.Va. 221, 245 n. 28, 488 S.E.2d 901, 925 n. 28 (W. Va. 1997) (describing a public nuisance as "the doing of or the failure to do something that injuriously affects the safety, health, or morals of the public, or works some substantial annoyance, inconvenience, or injury to the public.").

44. PPG's Natrium facility releases mercury into the air and water that deposits in Maryland's air, land, and water, significantly interfering with and harming the public health, safety, comfort, and convenience of Maryland's citizens. The Natrium facility's emissions and discharges of mercury are therefore a public nuisance.

45. PPG, as the owner and operator of the Natrium facility, is the party responsible for the public nuisance caused by the Natrium facility's emissions and discharges of this noxious, harmful, and toxic substance.

46. Abatement of the unhealthy and dangerous emissions from PPG's Natrium facility is required to prevent further damage to Maryland's environment and its fisheries, and to the health, safety, comfort, and convenience of Maryland citizens.

Count II: Private Nuisance

47. The Plaintiffs re-allege and incorporate each of the allegations in the foregoing paragraphs.

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48. Under West Virginia law, a private nuisance is "a substantial and unreasonable interference with the private use and enjoyment of another's land." *Carter v. Monsanto Co.*, 575 S.E.2d 342, 346 (W. Va. 2002). The type of conduct that constitutes a private nuisance "is intentional and unreasonable, negligent or reckless, or [conduct] that results in . . . abnormally dangerous conditions or activities in an inappropriate place." *Hendricks v. Stalnaker*, 380 S.E.2d 198, 200 (W.Va. 1989).

49. A use is unreasonable "when the gravity of the harm outweighs the social value of the activity alleged to cause the harm." *Browning v. Halle*, 219 W.Va. 89, 632 S.E.2d 29 (W.Va. 2005).

50. The use of the mercury-cell production process at PPG's Natrium facility results in the release of mercury into the air, causing a threat to the public health. The mercury-cell production process has no social value because mercury-free production processes for chlor-alkali products exist and are economically viable. Mercury-free processes are more efficient than the mercury cell process and are capable of producing high-grade products. The use of PPG's Natrium facility for mercury-cell chlor-alkali production therefore is unreasonable.

51. At the Natrium facility, PPG intentionally releases into the air mercury that it knows, or should know, deposits in Maryland State parks and State-owned property, lakes, and fisheries that are used for recreation and subsistence by the citizens of Maryland. It is

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unreasonable for PPG to continue to release mercury into the air when superior alternative production processes exist. The mercury released by PPG's Natrium facility substantially interferes with the use of Maryland state property and waterways for fishing.

52. PPG, as the owner and operator of the Natrium facility, is the party responsible for the private nuisance caused by the Natrium facility's emissions and discharges of this noxious, harmful, and toxic substance.

53. Abatement of the unhealthy and dangerous emissions from PPG's Natrium facility is required to prevent further interference with the use of Maryland State property, parks, lakes and fisheries for recreational and subsistence fishing and hunting.

Count III: Trespass

54. The Plaintiffs re-allege and incorporate each of the allegations in the foregoing paragraphs.

55. Under West Virginia law, trespass is "an entry on another man's ground without lawful authority, and doing some damage, however inconsiderable, to his real property." *Hark v. Mountain Fork Lumber Co.*, 127 W.Va. 586, 591-92 (W.Va. 1945). An entry may be intentional, negligent, or made in connection with the conduct of an ultra-hazardous activity. *Bailey v. S. J. Groves & Sons Co.*, 159 W.Va. 864, 868, 230 S.E.2d 267 (W.Va. 1976).

This page contains no comments

56. PPG has entered onto Maryland state property by intentionally and negligently by emitting hazardous mercury from the Natrium facility that it knew or should have known would settle on Maryland State property through wet and dry deposition.

57. The mercury emissions from PPG's Natrium facility that have settled on Maryland's land and waterways have contaminated those lands and waterways and damaged their productivity by rendering regular consumption of the fish and wildlife they support a threat to human health.

58. PPG, as the owner and operator of the Natrium facility, is the party responsible for the trespass caused by the Natrium facility's emissions and discharges of this noxious, harmful, and toxic substance onto Maryland State property.

59. Abatement of the unhealthy and dangerous emissions from PPG's Natrium facility is required to prevent further harm to Maryland fisheries resulting from PPG's unlawful entry onto State property.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs request that this Court grant the following relief against Defendant PPG Industries, Inc.:

1. A declaration that PPG's emissions and discharges of mercury from its Natrium facility's mercury-cell production processes are a public nuisance;

This page contains no comments

2. A declaration that PPG's emissions and discharges of mercury from its Natrium facility's mercury-cell production processes are a private nuisance;
3. A declaration that PPG's emissions and discharges of mercury from its Natrium facility's mercury-cell production processes are a trespass to land;
4. An injunction requiring PPG to abate, raze, or remove the public nuisance, private nuisance, and trespass to land that its Natrium facility's mercury-cell production process has created and continues to create;
5. Monetary damages; and
6. Such other relief as this Court deems just and proper.

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Respectfully submitted,

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