

Environmental Econ 8545

Review Questions -6st set.

Pollution Policy in Practice: Toxic and Mobile Source

Toxic

1. Critique the approach that OSHA has taken to internalizing the Externalities associated with hazards in the workplace.
2. If a product or additive is known to cause cancer in humans or in animals should that product be banned. T, F, or Depends - explain.
3. Consider a group that is highly susceptible to a toxic chemical that is commonly found in certain work environments. Assume that members of this group are easily identified. Further assume that the general population is not susceptible and that the costs of protecting the susceptible group would be very high if they remained in the contaminated environment. Discuss the pros and cons of banning the susceptible group from these work environments. For example, should pregnant women be banned from certain occupations? Should smokers be banned from working in environments where asbestos is present in high concentrations. Would warnings be a better solution than a ban? If a warning is used instead of a ban, should a worker who belongs to the susceptible group be able to sue the employer for damages?
4. A number of years ago the U.S. banned cyclamates (an artificial sweetener). Animal tests showed that cyclamates caused cancer. Consider saccharin (another artificial sweetener). Animal tests indicate that it causes bladder cancer in male, but not female, mice. Human studies indicate that women who consume high levels of saccharin have a lower than average incidence of bladder cancer. Note that NutraSweet (the substitute for saccharin) is much more expensive than saccharin. Should saccharin be banned if it is chronically toxic for males? Should it be banned for everyone? Is a complete ban discriminatory towards women? How about a warning? Discuss the problems.
5. Argue that the market place will not internalize the externalities associated with toxic chemicals in the work environment. Would unions help? Devise a government policy to correct these externalities.
6. Should a woman be able to sue a liquor company if drinking that company's booze during her pregnancy causes damage to her fetus?
7. Discuss civil law as a method of internalizing the externalities associated with toxic substances. In your discussion distinguish between negligence and strict liability as grounds for claims.

8. Discuss criminal law as a method of internalizing the externalities associated with toxic substances.
9. Assume a world of complete statistical information concerning product safety. Should individuals be allowed, on efficiency grounds, to choose any level of product associated risk or should the government set minimum standards for product safety? Think of what actually happens in practice. Does your answer depend on how healthcare is financed?
10. Consider the third party effects associated with toxic substances. The judicial system is often put forward as the appropriate mechanism for internalizing the third party externalities associated with toxic substances. Discuss the difficulties that the traditional judicial system will have in internalizing these sorts of externalities. How might the system be modified to make internalization through the legal process more likely? Think about the impact of uncertainty, latency, and statistical probabilities on the process.
11. Discuss, from an efficiency perspective, whether DDT should have been banned. How about from an equity perspective.
12. Should the Superfund be financed by taxes on chemical companies? Discuss the efficiency and equity implications of this method of financing the fund.
13. One of the major limitations of the civil law approach to internalizing the externalities associated with toxic substances is that the source is "judgement proof." Can this flaw in the system be corrected? How?
14. Write a short essay that discusses, from a regulatory perspective, the distinction between fund and stock pollutants.

Mobile Source Air Pollution

15. Devise a plan for controlling automobile emissions. Discuss the efficiency and equity implications of your plan. Is politically feasible?
16. What do you think of vehicle inspection and maintenance programs for as a method to reduce emissions? Should they be mandatory in non-attainment regions?
17. Imagine an emissions charge that is a function of the amount of emissions measured by inspection and the number of miles driven. Should the rate be a function of where the car is registered?
18. Argue that the emissions standards on new automobiles are too stringent.

19. Discuss the efficiency and equity implications of one purchasing a humongous SUV.
20. What are the current U.S. vehicle emissions standards?

Water:

21. Should the water quality standards for community water supplies be a function of the number of people served by the system? Should there be standards for private individual wells?
22. Explain how and why allowable emissions into a waterway should vary over time. Does it depend on the type of emissions?
23. Should there be uniform ambient water quality standards?
24. Does the bubble concept and the offset policy as they relate to air pollution make any sense for water pollution? Explain either why they can or cannot be used to decrease the costs of controlling water pollution.
25. Argue that some emissions into water ways should not be restricted at their source. Why? What sorts of emissions are you talking about? Would your argument(s) also apply to emissions into the air?
26. Describe our current system (in 2 pages or less) for regulating water pollution.
27. Are water treatment plants and systems designed to increase the absorptive capacity of waterways substitutes or complements? How does one determine the efficient amount of these plants and systems from society's perspective?
28. Argue that in the case of non-point agricultural water pollution it might make more sense to tax one of the agricultural inputs than to tax the emissions directly. Does your argument contradict what we learned in the first section of the course?

Regional Air Pollution

29. Does efficiency dictate that different regions have different ambient air quality standards?
30. Should emissions taxes be a function of the number of people exposed to those emissions?
31. Argue that emissions standards should vary with meteorological conditions. Is it practical to make them a function of meteorological conditions. Describe a case where you think it might be. Describe a case where it is definitely not practical. Can you think of a real world

- case where air pollution emissions standards are a function of the meteorological conditions?
32. European countries have relied to a much greater extent on emission charges than has the United States, which seems to be moving toward a greater reliance on transferable emission permits. From an efficiency point of view, should the United States follow Europe's lead and shift the emphasis toward emission charges? Why or why not?
 33. Does the offset program impede modernization and technological progress in non-attainment regions?
 34. Discuss the impact of (1) New Source Performance Standards, and (2) the fact that new sources typically must meet the prescribed emissions standards by installing the control equipment necessary to meet the mandated reductions at each point, on the ability of the bubble policy to reduce abatement costs.
 35. Devise, what you consider to be, the "best" scheme for reducing sulfur emissions by some specified amount. Consider efficiency, distributional impacts and political feasibility.
 36. Are uniform emissions standards cost-effective for achieving a given amount of emissions reduction? Discuss.
 37. Write a short essay that discusses from a regulatory perspective the distinction between uniformly and non-uniformly mixed pollutants.
 38. Discuss the advantages and disadvantages of either an emissions (or ambient) permit scheme. Include in your discussion consideration of how the permits should be initially allocated. Consider efficiency, distributional impacts, political feasibility and enforcement.
 39. Acid deposition is definitely one type of pollution that crosses international boundaries. In fact, many pollutants cross jurisdictional boundaries. Discuss methods to achieve an efficient amount of pollution across jurisdictional boundaries. Will a charge or permit system work?

General and Other:

40. What level of government should have responsibility over pollution control?
41. As Tietenberg notes "ambient standards are required by statute to be determined without any consideration given to the costs of meeting them. They are supposed to be set at a level sufficient to protect even the most sensitive members of the population." What are the implications of determining the standards in this manner?

42. Argue that direct regulation, as compared to emissions taxes, is the "best" way to regulate pollution.
43. Discuss the equity implications of the offset program, the bubble policy and emissions banking. Can the equity objections be overcome by giving the emissions credits to the community?
44. Describe the bubble policy and explain why it minimizes the cost of achieving the emissions standards for the bubble. How large should the bubble
45. Demonstrate (i.e., prove) that an ambient permit system is cost-effective for achieving a specified improvement in ambient air (water) quality. Is the same true for an ambient charge set at the appropriate level? Yes or no and demonstrate.
46. Will a firm necessarily prefer an emissions charge over mandatory pollution controls? Assume both schemes lead to an equivalent reduction in emissions. Explain
47. Argue that it is not worth it to allocate current resources to reducing the impact of the Greenhouse Effect. Then, critique your argument