UNIVERSITY OF KENTUCKY  
COLLEGE OF LAW  

Examination No.  

Environmental Law (898-001) Prof. M.P. Healy  
April 29, 1994 Room 110  

FINAL EXAMINATION  

INSTRUCTIONS  

The final examination consists of five essay questions, all of which have subparts. You will have 180 minutes to prepare responses to these questions. The examination is worth a total of 180 points. For each question, I have indicated the potential points and a suggested time to allow for completion of the examination within three hours.  

The examination is open text, open statute, open notes, and open outline (provided that you wrote or contributed significantly to writing the outline). You are not permitted to refer to treatises, horn books, commercial outlines, or other secondary materials.  

You must write your examination number on the front of each blue book that you use. Please write your examination number on this question sheet as well. Number sequentially the blue books that you use. Turn in all materials -- this examination packet and all blue books, including blue books used for scrap paper -- at the end of the examination period or when you have completed the examination, whichever is earlier.  

PLEASE READ EACH QUESTION COMPLETELY BEFORE BEGINNING TO OUTLINE OR WRITE YOUR ANSWER. ANSWER EACH PARTICULAR PART OF EACH QUESTION BEING ASKED. WRITE YOUR ANSWERS LEGIBLY: WRITE ONLY ON EVERY OTHER LINE AND WRITE ONLY ON ONE SIDE OF THE BLUE BOOK PAGE. DO NOT WASTE YOUR TIME WITH WILD SPECULATIONS FOR WHICH NEITHER THE QUESTION NOR THE ANSWER CALLS. Your work on this examination is subject to the College of Law's Honor Code.  

If you have any questions, ask me.  

DO NOT TURN THIS PAGE  
OR BEGIN THIS EXAMINATION  
UNTIL YOU ARE TOLD YOU MAY DO SO  

GOOD LUCK!  

QUESTION I (50 POINTS -- 50 MINUTES)  

New City is planning to build a new underground highway system to improve traffic conditions in its inner city. The underground highway will handle a large volume of traffic. In order to maintain breathable air inside the tunnel, the city will equip the tunnel with several venting structures. Each of these structures will make use of fans and vents to bring fresh air into the tunnel and to emit into the city's air the pollutants emitted by automobiles using the underground highway. The city is located in an air quality control region (AQCR) that is nonattainment for carbon monoxide. The AQCR is attainment for all other criteria pollutants. The pollutants and the relevant amounts that will be emitted from the venting structures are as follows:
You have been contacted by an environmental group that is opposed to the city's plans for a new underground highway and seeks your advice. Please prepare a response to the following inquiries.

A. The city has not yet obtained a permit for a new source under the Clean Air Act. The environmental group wants to know whether any new source permitting requirement(s) apply to the proposed underground highway. Please evaluate whether any such requirement would apply to the city's proposed project. There is no need to discuss the substantive requirements that the source would have to meet if new source permitting were required.

B. Regardless of your views about whether any new source permitting requirement applies, you are to assume (1) that all Clean Air Act requirements for new sources apply fully to this source and (2) that the source is among a class or category of sources defined for each type of pollutant that it emits. Your research on emissions standards has yielded the attached provision from the Code of Federal Regulations, which identifies the amount of each of the listed pollutants that is defined to be a significant emission. Please identify the emissions standard that would apply to each pollutant being emitted from the underground highway. Please briefly explain your reason for concluding that each such standard will apply.

C. You are to assume again that all Clean Air Act requirements for new sources apply fully to this source. The environmental group that has contacted you has significant concerns about carbon monoxide emissions the underground highway and has asked you to describe briefly any Clean Air Act requirements, other than the applicable emissions limitation, that apply to this new source and its plan to emit carbon monoxide. Please provide this brief description.

D. Assuming that your client wishes to assert a claim that New City is violating the Clean Air Act, what type of claim would your client assert, in which court would the action be brought, and why would that court arguably have jurisdiction to adjudicate the claim.

EXCERPT FROM EPA REGULATIONS DEFINING WHEN THE EMISSION OF A POLLUTANT IS SIGNIFICANT
(40 C.F.R. 51.166(b)(23))

(23)(1) Significant means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

<table>
<thead>
<tr>
<th>Pollutant and Emission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide: 100 tons per year (tpy)</td>
</tr>
<tr>
<td>Nitrogen oxides: 40 tpy</td>
</tr>
<tr>
<td>Sulfur dioxide: 40 tpy</td>
</tr>
</tbody>
</table>
Particulate matter: 25 tpy of particulate matter emissions. 15 tpy of PM.
Ozone: 40 tpy of volatile organic compounds
Lead: 0.6 tpy
Asbestos: 0.007 tpy
Beryllium: 0.0004 tpy
Mercury: 0.1 tpy
Vinyl chloride: 1 tpy
Fluorides: 3 tpy
Sulfuric acid mist: 7 tpy
Hydrogen sulfide (H₂S): 10 tpy
Total reduced sulfur (including H₂S): 10 tpy
Reduced sulfur compounds (including H₂S): 10 tpy

QUESTION 11 (30 POINTS -- 30 MINUTES)

The Old Mine property is the site of an abandoned copper and zinc mine that operated intermittently from the 1860's through the 1950's. The companies that mined the site left behind reactive mine tailings, waste rock, and excavated ores. When exposed to oxygen and water, these materials form "acid mine drainage" (AMD), which contains high concentrations of the following toxic pollutants: aluminum, cadmium, copper, zinc, iron, and sulfuric acid. The concentration of these pollutants increases as the period of exposure to oxygen and water increases. Unless impeded, rain water falling on the site carries this AMD downhill, in the form of surface runoff, into the Blue River -- a river that flows interstate. Indeed, such toxic runoff had caused several large fish kills in Blue Reservoir and had necessitated additional purification of drinking water.

In the 1960's, the Blue River Water District (the District) acquired a portion of the Old Mine property to build the Blue Reservoir. Both Blue Reservoir and River are used for drinking water. In 1985, the District constructed the Old Mine Facility (the facility) in an attempt to reduce the threat of continued toxic runoff from the site. The facility consists of Mine Run Dam and the Mine Run Dam Reservoir surface impoundment, along with a series of other impoundments, pipes, valves, and channels. The facility was designed to capture contaminated surface water flowing through the site, and to contain and evaporate the water through a ponding system that would prevent the contamination from reaching the reservoir and river below.

The facility operates by establishing an impoundment system where runoff into Blue River and Reservoir had previously been unimpeded and uncontrolled: Water contaminated with toxic pollutants runs off the mine site and collects in the series of impoundments and eventually collects in the Mine Run Dam Reservoir. As part of the facility's ongoing operation, various pipes and channels carry polluted runoff from the mine tailings and dikes into the Mine Run Dam Reservoir and other facility impoundments. In addition, from time to time, water and drainage collected in the Mine Run Dam Reservoir and containing toxic pollutants have passed over the spillway or through the dam's discharge valve into the Blue River and Blue Reservoir.

You are a law clerk for a federal district judge, which is reviewing a citizens suit claim alleging that the company is violating the Clean Water Act by discharging pollutants into waters of the United States without a National Pollution Discharge Elimination System (NPDES) permit. The U.S. Environmental Protection Agency (EPA) has taken the position that a permit is not required in the circumstances of this case.

A. Please analyze whether a permit is required in this case and explain why the judge should affirm or reverse EPA's decision that a permit is not required.
B. Assuming that the NPDES permit requirement does apply to the discharges from the dam, (1) what technology-based standard would be applied to the discharge of toxics from the dam, (2) how would EPA generally identify the discharge limitations to be included in the permit given that standard, and (3) briefly describe the type of variance, if any, that would be available if a standard for a relevant category of sources has been set by EPA.

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QUESTION 111 (40 POINTS -- 40 MINUTES)

The Little River Hunting and Fishing Club (The Little River Club) owns 3500 acres of land in East Texas. This property contains a very substantial amount of high-quality wetlands and wildlife habitat essential to migratory waterfowl. Some studies have rated the vegetation on The Little River Club's land as among the most pristine wetland areas in the state of Texas and have documented that its wetlands play host to such dwellers as mallards and wood ducks. The Little River Club, which hopes to guarantee that this property will be preserved in its pristine state without the corrupting effect of development, has decided to donate a nondevelopment easement on this property to the United States Fish and Wildlife Service (FWS), an agency in the United States Department of the Interior.

As you are aware from our discussions in this course, our nation's wetlands are threatened by development. Because wetlands are critical to flood control, water supply, water quality, and wildlife, concerns have been raised about the long-term effects of the rapid disappearance of wetlands. The FWS has the statutory responsibility to protect and maintain the population of migratory waterfowl, other wildlife resources, and endangered species. Consistent with this responsibility, the FWS established the National Wildlife Refuge System. Through this Refuge System, the FWS has acquired millions of acres of environmentally rich lands in order to preserve them in their natural state. These lands provide a winter home to many thousands of migratory birds and waterfowl using the "Central Flyway." The FWS acquires some Refuge land in fee simple; much land, however, is obtained in the form of leases and easements precluding development of the land, because the FWS is seeking only to prohibit environmentally destructive activity on the land. The purchase of leases and easements is a far more economical way to promote the goal of preventing adulteration to the lands, because the government need not buy the property and take title outright; it purchases only a promise by the owner to refrain from developing the property in a manner inconsistent with wetland preservation.

The FWS is now planning to add to the National Wildlife Refuge System by accepting from the Little River Club a donation of a non-development easement on the Club's property. You are an associate who practices environmental law for a small firm. Your firm has been contacted by the Little River Authority, which has raised concerns about the planned donation of the conservation easement. The Authority has preliminary plans to develop the Little River Reservoir. The planned $175 million reservoir would satisfy the anticipated need of three counties for additional water over the next forty years. The reservoir would, however, flood about fifty thousand acres, including the property owned by The Little River Club. One important consequence of including the Club's property in the National Wildlife Refuge System would be that Texas would be foreclosed from taking the property by means of eminent domain. The Little River Reservoir could not be constructed without the ability to flood these lands.

You have been assigned to work on this project and the partner has asked you to prepare responses to the following questions.
A. Please describe briefly the procedure that the FWS would follow, if the National Environmental Policy Act (NEPA) applied to its decision to accept the conservation easement. Do not analyze the substantive decisions that the FWS would make, given the facts, in following these procedures.

B. Based on the facts that are outlined above, analyze whether the FWS must prepare an Environmental Impact Statement (EIS) prior to deciding whether to accept the Club's donation of a conservation easement.

C. Assume that Little River Authority wishes to bring a lawsuit alleging that the FWS acted illegally when it failed to comply with NEPA prior to deciding whether to accept the conservation easement. Briefly define the cause of action that you would pursue to assert that claim and analyze whether Little River Authority would have a right to assert such a claim.

QUESTION IV (30 POINTS -- 30 MINUTES)

In the mid-1970's approximately 50 secondary lead smelters in the United States were engaged in the business of reclaiming the lead from about 90% of all spent batteries. These smelters were themselves a major source of several kinds of pollution: water discharged by the smelters contained large amounts of toxics; hazardous materials were contained in process wastes, which were subject to on-site and off-site storage or disposal; and hazardous air pollutants were emitted by the smelters.

New environmental laws and regulations that became applicable to secondary lead smelters placed such a financial burden on their operation that about 60% of the smelters operating in 1976 were out of business by 1986, and the 20 or so smelters that remained were reclaiming only about 70% of all spent batteries. In 1986 only 55 million of the available 70 million spent batteries were reclaimed. This meant that the 15 million unreclaimed, spent batteries endangered the health of all persons working or residing near where they were disposed. Meanwhile, recycling of the 55 million reclaimed batteries produced about 60% of all lead used in the United States. Without recycling by secondary lead smelters, about 55 million additional spent batteries would be scattered throughout our country annually and a new source of lead would have to be found.

Smelter, Inc., owns and operates a secondary lead smelting facility in Mining Town and is thus one of the 20 smelters remaining in the country which reclaim spent batteries. Each year, Smelter реклaim more than 2.5 million batteries, or about 5% of those reclaimed in the United States. Smelter purchases batteries from various suppliers and places them in a reclamation process. Incoming batteries are cracked open and drained of sulfuric acid. The sulfuric acid is then collected in drums and stored on the site for future reclamation and sale. The lead battery components, known as "plates and groups," are then removed from the broken batteries and run through Smelter's smelting process to produce lead ingots for sale.

Assume that you are a lawyer at the U.S. EPA, which is deciding whether the Resource Conservation and Recovery Act (RCRA) applies to the operations of Smelter, Inc. You have been informed by agency scientists that, based on the applicable EPA tests, the lead contained in the plates and groups is toxic and the sulfuric acid is corrosive.

A. Analyze whether RCRA compels EPA to regulate either or both of the following aspects of Smelter's operations: (1) its collection and storage of sulfuric acid; and (2) its process of handling and smelting the Uplates and groups" (i.e., the lead components of the batteries).
B. Regardless of your response to Part A, assume that your supervisor at EPA has told you that the Administrator believes that RCRA does not dictate that the operations of Smelter, Inc., must be regulated. (You are not to argue this point.) Please discuss the extent to which, as a policy matter, EPA should interpret RCRA to apply to the plant's operations. Based on the purposes of RCRA and the effects of regulation, should EPA reach a decision to regulate either or both of the operations identified in Part A? (For purposes of Part B, do not discuss whether or not RCRA's terms compel a decision to regulate.)

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QUESTION V (30 POINTS -- 30 MINUTES)

The City of Fairview operates a publicly-owned treatment works for treating sewage, wastewater, and the pretreated effluent of indirect dischargers. This sewage treatment system includes a network of combined sewage and stormwater pipes. Under ideal conditions, the effluent flowing in the system is transported to the Fairview Treatment Plant where it is treated and then discharged through two discharge points into West River, a river that flows interstate. This system, however, is capable of carrying to the treatment plant only three times the average flow of effluent on a dry-weather day. When the flow exceeds this capacity, as can occur during periods of precipitation, the effluent is released untreated through one of 25 combined sewer overflow (CSO) discharge points in what is termed a CSO event. There are between 50 and 80 CSO events in Fairview each year.

Fairview's 25 CSO discharge points, like the two discharge points from the Treatment Plant, drain into West River. This waterway is used by Fairview residents for recreation, including water contact activities such as boating. The release of untreated sewage as part of a CSO into the river can present health risks.

Environmental Group (EG) has developed both anecdotal and scientific evidence of the polluted nature of West River, especially during and immediately after CSO events.

Fairview has a NPDES permit, which includes specific limits on the amount of pollutants that can be discharged from the two discharge points leading from the Treatment Plant. The permit was granted by the U.S. EPA, which has authority to administer the NPDES program in Fairview's state. The federal permit also states that Fairview may occasionally discharge effluent from the other 25 CSO discharge points, but does not define any specific limits on the amount of pollutants that can be discharged from those points. The permit does, however, include a general condition that prohibits any discharges that would violate the state's water quality standards. The permit provides that, "[n]otwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate State Water Quality Standards (WQSs)." The State has developed narrative water quality standards for the maximum level of fecal coliform in West River. EG has offered declarations and scientific reports that it believes demonstrate continuing violations of those narrative WQSs for fecal coliform in the waters surrounding the 25 CSO discharge points after CSO events.

Abatement of CSO events is not easy. It has been estimated that to solve the problem in Fairview will cost between $500 million and $1.2 billion dollars.

You are employed in the Environment and Natural Resources Section of Fairview's City Attorney's Office. Your office has received communications from EG indicating that the group may bring an action alleging a violation of the Clean Water Act. In considering such an action, your supervisor has asked you to prepare responses to the following three inquiries.

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A. Please describe briefly how WQSs supplement NPDES national standards under the Clean Water Act.

B. Please analyze whether EG would be likely to prevail if it were to bring a citizens suit in federal district court alleging a violation of the WQS for fecal coliform.

C. Assume that a citizens suit will be unsuccessful, describe whether the group would have any alternative avenues of relief to seek control of the effects of CSOs on pollution of West River.