

FINAL EXAMINATION  
**ENVIRONMENTAL LAW**

P.N. Davis

Tuesday, December 3, 1996  
8:30 AM - 11:30 AM

THIS IS A THREE (3) HOUR EXAMINATION.

THIS EXAMINATION CONTAINS SEVEN (7) PAGES.

THIS EXAMINATION CONTAINS FIVE (5) QUESTIONS.

I = 70 min.    II = 40 min.    III = 20 min.    IV = 20 min.    V = 30 min..

FILL IN YOUR EXAMINATION NUMBER ON THE BLUEBOOK STICKER.

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YOU MAY BRING IN YOUR STATUTORY SUPPLEMENT, BUT NOTHING ELSE. You may write in the margins and on the blank pages of the supplement.

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Instructions:

1. These questions will be graded on the basis of the times indicated with each questions. The indicated time for the questions total 3 hours. You will be given 3 hours to write the examination. Budget your time carefully or you may not finish.
2. Be sure to state a result whenever a question asks for one. Merely stating the arguments on both sides of a legal issue will result in only partial credit because you will not have completed the analysis required by that type of question.
3. If you find it necessary to make factual assumptions in order to answer a question, be sure to state the assumption.
4. Do not assume additional facts for the purpose of avoiding a legal issue or making its resolution easier.
5. Comment briefly on each legal issue reasonably raised by the questions and on each reason for your answer, even when you decide that one legal issue or reason controls the result.
6. The difference between triumph and disaster may lie in a **careful** reading of the questions.

## I.

(70 minutes)

In the new era of the deregulated electric power industry just beginning, new electric power plants may be built by electricity producing companies for sale to retail distributing companies located hundreds of miles away. Probably this will mean that power plants will be located conveniently close to coal sources or bulk transportation corridors rather than close to consumers.

Show-Me Power Consortium, Inc., proposes to build a very large 1,500 Mw power plant along the shore of the Missouri River opposite Rocheport, Missouri. The plant will be located there because it has access to coal barges on the river, unit coal trains on the Union Pacific (formerly Missouri Pacific) Railroad running along the south bank of the river, and Interstate 70. It is half way between the large power markets of St. Louis and Kansas City.

Show-Me Power has acquired a 1000-acre tract of floodplain which contains a 300-acre swamp. The swamp is home to the usual collection of marsh wildlife, including red-wing blackbirds, muskrats, crayfish, and the like. So far as is known, nothing unusual lives in the marsh. The swamp contains about 10 acres of open water. It has a resident population of about 100 Canada Geese and is used by large numbers of migratory waterfowl in spring and fall. Among them is the protected Trumpeter Swan. Bald eagles do not live in the swamp, but use it for fishing. The remainder of the tract is farmland created by draining swamps many years ago. There is a dead tree on the dry portion of the tract near the swamp which has an abandoned eagle's nest. The tree is rotting out, and is expected to fall over in a few years.

Although it is protected by a low agricultural levee, the land floods during 25-year floods (those which occur on the average once every 25 years); the land, of course, flooded during the 1973, 1986, 1993, and 1995 floods. There is plenty of room on the floodplain for construction of the plant, with its associated smokestacks, cooling towers, barge & train unloading facilities, coal storage piles, cooling water storage ponds, transformer and electrical switching yard, and transmission line terminals. The plant will have three 500-foot smokestacks, six 400-foot cooling towers (as at the Callaway nuclear power plant), and three transmission lines crossing the river on 150-foot tall towers (similar to those crossing I-70 northeast of the Callaway plant). The vertical clearance required above the ordinary high water level is 55 feet. (The transmission cables, of course, droop between the towers.) The barge unloading facility will involve constructing a floating pier in a 1000-foot long notch in the bank of the river. The plant and all associated facilities will be surrounded by a levee 25 feet above ordinary high-water elevation (that will make the levee taller than the 1993 record flood level). That levee will

cause a constriction in flood flows during major floods like those of 1973, 1986, 1993, and 1995.

The smokestacks and cooling towers will be visible for miles because of their 500-foot and 400-foot heights respectively. The transmission line towers and lines will be visible for some distance up and down the Missouri River. The plant and all its associated facilities will be located nearly opposite the wine-tasting and dining facility of Les Bourgeois Winery, located on top of the bluff of the river along the north bank. It will constitute a major portion of the view from the winery.

Coal barges will bring low-sulphur coal from the eastern Kentucky coal fields via the Kentucky, Ohio, Mississippi, and Missouri Rivers, and high sulphur coal from Illinois via the Mississippi and Missouri Rivers. Unit coal trains will bring low-sulphur western coal from Wyoming. About three unit coal trains of 10,000 tons each will come to the plant each week. In addition, five 2,000 ton coal barges will come each week.

These three types of coal will be blended at the plant together with limestone for burning in three large fluidized bed boilers. The limestone will be brought by truck from local Missouri quarries. Three hundred 30 ton truckloads of limestone will come each week. The fluidized bed boiler technology is designed for crushed limestone to be added to the coal on the boiler grate and to absorb the sulphur-dioxide emitted by the burning coal before it leaves the boiler.

The combustion emissions from the boilers will be run through baghouses and electrostatic precipitators to remove particulates. The ash from the boilers and fly ash from the baghouses and electrostatic precipitators, both of which are mildly toxic materials, will be taken by the same unit trains back to Wyoming to fill the cavities created by surface mining the coal there.

The cooling towers are of the wet cooling type. (They are essentially very large evaporative radiators, much bigger than those on the roof of the MU power plant.) They will generate huge quantities of warm moist air. In cooler weather they will create clouds plumes downwind of the towers. In appropriate weather, they will create fog plumes which could flow over I-70 at the Rocheport bridge; in winter, they occasionally will create freezing mist, which will coat everything with ice, including I-70, other nearby roads, and the Katy Trail beneath the bluff. The trail is used by hikers and bicyclists year round, but not as much during below-freezing weather.

The boiler water must be replaced continuously in small quantities. River water will be used as a source. The used boiler water, which contains anti-corrosion chemicals, will be discharged into the river. Drainage water from the coal piles and limestone piles, located on large concrete pads, will be discharged into the river.

You are an attorney with Ever & Faithful, the law firm representing Show-Me Power. You must determine what environmental permits are required in order to build and operate the

power plant. Assume that Missouri has no federally-approved environmental regulatory programs. (Assume also that Show-Me has already acquired the necessary land titles and local zoning permissions.) These are the questions you have determined you must answer:

(1) What federal permits are required? (*Note:* coal power plants do not require a permit from the Federal Energy Regulatory Commission [FERC]). Discuss which federal regulatory statutes apply to this situation, what permits are required, and generally what standards must be complied with.

(2) What studies must Show-Me conduct as part of its permit applications?; what aspects of the project should be studied?

(3) Does Show-Me need to acquire anything else besides those permits in order to operate?

## II.

(40 minutes)

Assume the power plant in Question I is built and is operating in compliance with all necessary permits. Nonetheless, from time to time the baghouses and electrostatic precipitators malfunction. When that happens, acidic particulates are emitted from the smokestacks, drift downwind, and settle on the land, structures, and vehicles in the vicinity. During one episode in the first year of operation, the particulates settled on hundreds of cars parked in Rocheport while their owners attended the Rocheport Festival. During another episode that year, they settled on cars parked at the Les Bourgeois Winery and on grape vines there, greatly injuring them and rendering the entire grape crop unusable for wine-making. In both instances, car paint was speckled and the cars needed to be repainted. Although Show-Me officials asserted several times that the particulate emissions would not occur again, they happened about five times during the first year of operation.

Les Bourgeois, the Village of Rocheport, Boone County, and the car owners wish to sue Show-Me Power. You are an attorney hired by Les Bourgeois. What legal theories might be used in such a suit? Does Show-Me have any potentially effective defenses? (Assume that causation — that the particulates came from the power plant and that they caused the injuries — is not in dispute.) What remedies might be available, if the court finds liability? Would the various plaintiffs be likely to succeed in such a suit?

### III.

(20 minutes)

As part of the newspaper publicity about the speckled car paint problem, it was disclosed that the occasional particulate emissions from Show-Me's power plant exceeded the ambient air quality standards for the mid-Missouri air quality control region. The Ozark Chapter of the Sierra Club brought suit in federal district court against EPA, Missouri DNR, and Show-Me Power seeking an injunction against future violations of those standards. EPA and the state declined to take action on the grounds that the excess emissions were minor and occasional. They and Show-Me filed a motion to dismiss the suit.

You are an attorney hired by Sierra Club. State the statutory basis for the suit and the procedure the Sierra Club must follow to file the suit. State what grounds may be available to support Show-Me's motion to dismiss. Is the court likely to dismiss the suit?

(Do not discuss the substantive merits of the suit -- not enough facts have been provided to deal with substantive issues.)

#### IV.

(20 min.)

During the first annual inspection of Show-Me's power plant, the EPA inspector found a bird nest at the top on one of the smokestacks occupied by a Peregrine Falcon, a species listed as endangered by the Fish & Wildlife Service. There were eggs in the nest. The inspector reported this to the Fish & Wildlife Service. Because it feared that the residual SO<sub>2</sub> emissions would sicken the bird and its young and because there were no other known Peregrine Falcons in mid-Missouri, FWS ordered Show-Me to shut down the portion of the power plant emitting through that smokestack and required Show-Me not to restart it so long as the nest remained occupied by the falcon or its young. (Peregrine Falcons tend to remain in their nests for their lifetimes.)

Show-Me Power has located a professional bird handler with experience with falcons. While she assures Show-Me that she could move the bird and nest without injuring either, she could not assure that the falcon would continue to nurture the eggs.

You are attorney for Ever & Faithful, the law firm representing Show-Me Power. You get an emergency call from Show-Me, asking whether it must comply with this shutdown order. It would take one-third of its electrical generating capacity off line, and cause it to breach power supply contracts. You determine that there are three questions to answer.

- (1) Does the government have statutory authority to order such a shut down of that portion of the power plant?
- (2) Can the government lawfully require a shutdown of a portion of the power plant even if it has such authority?
- (3) Could Show-Me hire the professional bird handler to remove the falcon and nest from the smokestack and relocate it to another suitable location?

Discuss all relevant statutory and case law. State a result for each of the three questions.

V.

(30 minutes)

Define the following terms; mention what environmental statute, if any, it is associated with:

- (1) harm
- (2) prevention of significant deterioration
- (3) Montreal Protocol
- (4) potential responsible parties
- (5) adversely affected or aggrieved person
- (6) major federal action
- (7) waters of the United States
- (8) state implementation plan
- (9) best available control technology
- (10) national priority list