

**UNIVERSITY OF UTAH**  
**COLLEGE OF LAW**  
**EXAMINATION COVER SHEET**

Student Examination Number: \_\_\_\_\_

**Law 7240**

**Environmental Law and Policy**

**Professor Adler**

**Fall 2009**

**December 16, 2009**

**1:00 p.m. – 4:30 p.m.**

⌚ **Time Allowed:** 3 ½ hours

**Authorized Materials:** Open book. Students may bring any books, notes, outlines, or other written materials into the exam.

**Special Instructions:**

1. Not including this cover page and the general instructions page, this exam consists of 3 pages, with 8 questions. (Many of the questions have subparts.) Make sure you have the full exam.
2. You have 30 minutes to read and analyze the exam and 3 hours to answer the questions. Although you may use your time any way you would like, you will probably do better if you read through and scope out the entire exam first and then begin to answer the questions.
3. There are 180 points on the exam (one point per minute of time). The exam indicates point values for each question. The point values are proportionate to the expected length and depth of the answers, *i.e.*, questions with small point values should be answered relatively briefly, and questions with higher point values require more analysis and explanation. For example, a 10-point question should require no more than one concise paragraph. Try not to exceed the time allotted for any question. You will lose more points in the long run because you will run out of time or rush later answers, and if you spend too much time on a question, you are probably going beyond the scope of the expected answer. Most of the questions on this exam require relatively short answers. Do not write lengthy essays for questions with low point values because you will run out of time, and you will receive no additional credit for answering more than what was asked! Because the maximum point value for any question is 20 points, none of the answers should be very long.

4. Read the questions carefully and answer what is asked precisely, from the perspective of the party identified in the question. You will receive more credit if your answers are well-organized and responsive to the question. You will not receive more credit for “data dumps,” *i.e.*, simply writing a lot of information that is generally relevant to the subject matter.

**GENERAL INSTRUCTIONS FOR ALL EXAMS:**

1. Exams do not leave the exam room! Write your exam number on your copy of the examination questions, and return it to the proctor at the end of the exam.
2. Students may NOT take any bluebooks or scratch paper from the examination room, whether blank or used. Return to proctor.
3. If you are using a bluebook print your exam number, the title of the course and the instructor’s name on the front of each bluebook.
4. Number each bluebook (1 of 3, 2 of 3, 3 of 3, etc.) and place all bluebooks and examination questions inside the first numbered bluebook.
5. If the examination utilizes a computer answer sheet (Scantron):
  - You must use BLACK or BLUE INK only; no pencils
  - You may use CORRECTION TAPE only; no liquid paper
  - Print your examination number in the box found in the lower left-hand section of the form. Write the number in the first 4 spaces, and zero-fill any remaining spaces.

For example, if your examination number is 2983:

**IDENTIFICATION NUMBER**

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Fill in the bubbles corresponding to the numbers written.

On December 4, 2009, the Utah Supreme Court issued an opinion in *Utah Chapter of the Sierra Club v. Air Quality Board* (No. 20080113), a case in which the Sierra Club challenged the Utah Division of Air Quality's issuance of an approval order [permit] to construct a new coal-fired power plant in a rural part of southern Utah. (I am not making this up; it is a real case and a real decision issued two weeks before the exam.) Remarkably enough, this opinion addresses or suggests enough issues to cover virtually the entire course. As a result, this exam is based entirely on that opinion, or on related issues suggested by that opinion and by professorial imagination aided by academic license. (I will try to make clear which issues are actually in the case, and which issues I am spinning off of the opinion.)

The proposed power plant would be located in an area that currently attains all National Ambient Air Quality Standards (NAAQS) relevant to the proposed plant's emissions. Because it would be a major new stationary source of emissions, however, the plant was subject to the state's new source review process under the Clean Air Act (CAA). That process requires the state to ensure that the facility uses the "best available control technology" (BACT). Under the Prevention of Significant Deterioration (PSD) program, which is designed to "keep clean air clean," it also requires the state to ensure that the facility will not increase pollution in the air quality control region (AQCR) above specified increments, which are set below levels at which the NAAQS would be violated.

1. Section 169 of the Clean Air Act defines BACT as:

... an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter ... which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.

The Supreme Court agreed with the Sierra Club that the state improperly excluded integrated gasification combined cycle (IGCC) technology from consideration as a possible BACT. (That technology is currently being used at two U.S. power plants and at more plants internationally.) The power company argued that the state must exclude IGCC from consideration because it would require it to re-design its proposed facility, *i.e.*, that the state must take its proposed plant design as a given and consider only pollution controls that can be added to that design.

- a. Explain how the statutory text quoted above suggests why the Supreme Court rejected the power company's argument? **[10 points]**
- b. Why might the company's argument make more sense if a best technology decision was being made for an existing rather than a new facility? **[5 points]**
- c. Based on the language of section 169 above, should the BACT provision in the approval order prescribe the specific technology that must be used, or something else, and why? **[5 points]**

2. A U.S. Environmental Protection Agency (EPA) regulation under the PSD program states that construction approval generally expires, absent the grant of an extension, if “construction is not commenced within 18 months after receipt of such approval....” The Court remanded the state’s approval order for reconsideration of the terms and conditions of the approval because this plant did not meet the 18-month requirement. There are two basic reasons for this sunset of a new source approval. One relates to the BACT determination. The other relates to the NAAQS/SIP/PSD program. Based on your understanding of the purposes of each of those two requirements, what do you think those reasons are? **[10 points each; total 20 points.]** (Don’t panic! This is probably the most difficult question on the exam.)

3. Assume that, instead of being in an attainment area for all relevant pollutants, the proposed new plant is in a nonattainment area for fine particulate matter. In order to be approved, the facility would have to procure sufficient “offsets” from other pollution sources. The state suggests that the company purchase offsets from other large combustion sources within the AQCR, and that the air pollution control permits for those sources be amended to reflect those offsets. The company proposes to procure the same amount of offsets at a lower cost. It has contracts to purchase coal from two mines within the same AQCR, and from a third mine in an adjacent AQCR. Those mines generate significant amounts of dust during mining and reclamation<sup>1</sup> activities, and during storage, loading, and transportation of coal via heavy trucks on dirt roads (with dust coming from the coal during loading and transport, and from the dirt roads). Under the company proposal, contracts with the coal companies would be revised to require them to use “dust suppression” techniques such as spraying water on exposed mining areas, roads, coal storage piles and other sources of dust; and the power plant would pay more for each ton of coal to compensate the mines for those efforts. What concerns might the state and the Sierra Club have regarding the company’s proposal? **[20 points]**

4. The Supreme Court did not agree with the Sierra Club that the approval must regulate carbon dioxide (CO<sub>2</sub>) and other greenhouse gases (GHGs) that contribute to global warming.

- a. Identify the language in the quoted excerpt from section 169 above governing this issue, and evaluate whether the state agency should be entitled to deference in interpreting that language. (Note: Because Utah administrative law differs somewhat from federal law, answer the question under applicable principles of federal law.) **[15 points]**
- b. Assume that the state continues to choose not to regulate GHGs under the Clean Air Act. Also assume that, in the Copenhagen climate change negotiations going on as you write, the United States commits to a 17% reduction in GHG emissions nationally, from 2005 levels, by the year 2025. Finally, assume that the current “cap and trade” climate change bill in Congress does not pass. Instead, anxious for the United States to meet its new international commitments, Congress

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<sup>1</sup> “Reclamation” includes steps to restore and re-vegetate the mining site to a condition similar to that prior to mining.

decides that each state should be responsible for reducing its own GHG emissions by 17% (from the same 2005 baseline and with the same 2025 target).

- i. Why might an economist object to the proposal to reduce GHGs equally in each state, and what might Congress do in the bill to address that issue? **[10 points]**
- ii. You are in charge of designing Utah's program to comply with the new law. Describe the program you think would work best to achieve the 17% reductions, using any of the tools you learned in this class. **[20 points]**

5. National Environmental Policy Act (NEPA).

- a. Why did the issuance of the approval order in the Sierra Club case not require preparation of an environmental impact statement (EIS) under NEPA? **[5 points]**
- b. Assume an EIS had been required in connection with this project. Based on all of the above facts, describe what the EIS must discuss, and why. **[20 points]**

6. Local residents believe that a coal-fired power plant in their community will reduce their property values and threaten their health and welfare. Assume that the state re-issues the approval order on remand, and that any subsequent appeals of that approval order fail. What other legal action might those residents take regarding the proposed plant; what would they have to prove in order to prevail; and what forms of relief can they request? **[15 points]**

7. Assume that when the BACT determination is reconsidered on remand, the company proposes to use a new technology in which waste oil is mixed with the coal prior to combustion. Although the waste oil contains other pollutants, it increases the Btu (energy) value of the fuel—which the company argues is an “innovative fuel combustion technique” under section 169—meaning that the facility will emit less total pollution per Btu of energy generated. Should this innovative use of waste oil in a manner that the company claims will reduce air pollution escape regulation as a solid waste under the Resource Conservation and Recovery Act (RCRA) because it constitutes recycling? **[15 points.]**

8. Assume that the state approves the company's offset proposal despite the Sierra Club's objections. One mining company sees an opportunity to dispose of some of the spent chemicals it uses to wash its equipment by diluting those chemicals with the water it uses for dust suppression. Because of the large volumes of water needed for dust suppression, the chemicals are diluted to extremely low concentrations. That dust suppression liquid, however, seeps into the groundwater that supplies drinking water for the adjacent town. Evaluate whether the mining company and the power plant should be concerned about potential CERCLA (“Superfund”) liability in connection with this activity. **[20 points]**