

**Joint Legislative Committee on Performance  
Evaluation and Expenditure Review (PEER)**

Report to  
the Mississippi Legislature



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# **A Review of the Agricultural Aviation Board**

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PEER reviewed the Agricultural Aviation Board to determine whether it protects the public from the safety, health, environmental, and economic risks posed by the industry. The agency is deficient in the following areas:

- Because the board's written examinations for pilots and applicators do not fully comply with professional testing standards, the board cannot ensure that it is licensing individuals who can provide competent aerial commercial agricultural application services to the public.
- The board does not require documentation of its inspections of airplanes, equipment, or facilities used in agricultural aviation and thus cannot ensure that it conducts inspections effectively, uniformly, and consistently.
- The board does not impose penalties sufficient to deter and discipline violators. Also, the board has allowed its members to participate in penalty decisions involving their own companies.

In addition to the Agricultural Aviation Board, several other state and federal agencies have responsibilities in regulating agricultural aviation in Mississippi. Because some agencies' responsibilities overlap those of others, applicators and pilots are subject to the unnecessary effort and costs of duplicate pilot examinations and inspections. Also, the division of responsibility between the Agricultural Aviation Board and the Bureau of Plant Industry based on the type of product applied (hormonal versus non-hormonal) creates confusion regarding enforcement authority. The duties and responsibilities of the Agricultural Aviation Board could be carried out by the Bureau of Plant Industry, which would eliminate the duplication between the two agencies and place responsibility in an agency with a more structured approach to regulation.

## **PEER: The Mississippi Legislature's Oversight Agency**

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The Mississippi Legislature created the Joint Legislative Committee on Performance Evaluation and Expenditure Review (PEER Committee) by statute in 1973. A flowing joint committee, the PEER Committee is composed of five members of the House of Representatives appointed by the Speaker and five members of the Senate appointed by the Lieutenant Governor. Appointments are made for four-year terms with one Senator and one Representative appointed from each of the U. S. Congressional Districts. Committee officers are elected by the membership with officers alternating annually between the two houses. All Committee actions by statute require a majority vote of three Representatives and three Senators voting in the affirmative.

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The Committee assigns top priority to written requests from individual legislators and legislative committees. The Committee also considers PEER staff proposals and written requests from state officials and others.

PEER Committee  
Post Office Box 1204  
Jackson, MS 39215-1204

(Tel.) 601-359-1226  
(Fax) 601-359-1420  
(Website) <http://www.peer.state.ms.us>

The Mississippi Legislature

**Joint Committee on Performance Evaluation and Expenditure Review**

PEER Committee

**SENATORS**  
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TOMMY HORNE

**TELEPHONE:**  
(601) 359-1226

**FAX:**  
(601) 359-1420

Post Office Box 1204  
Jackson, Mississippi 39215-1204

Max K. Arinder, Ph. D.  
Executive Director

**OFFICES:**  
Professional Building  
222 North President Street  
Jackson, Mississippi 39201

May 8, 2001

Honorable Ronnie Musgrove, Governor  
Honorable Amy Tuck, Lieutenant Governor  
Honorable Tim Ford, Speaker of the House  
Members of the Mississippi State Legislature

On May 8, 2001, the PEER Committee authorized release of the report entitled **A Review of the Agricultural Aviation Board.**

A handwritten signature in cursive script, reading "Herb Frierson", written over a horizontal line.

Representative Herb Frierson, Chairman

**This report does not recommend increased funding or additional staff.**

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# A Review of the Agricultural Aviation Board

## Executive Summary

MISS. CODE ANN. Section 69-21-127 repeals provisions creating and empowering the State Board of Agricultural Aviation as of December 31, 2004. To aid the Legislature in deciding whether to re-enact the board, PEER approached this review as a sunset review, which determines whether an agency can justify its continued existence.

To make this determination, PEER reviewed:

- whether a clear public need exists for the regulation of agricultural aviation;
- the agency's effectiveness in meeting that need;
- the extent to which the agency's programs and jurisdiction duplicate those of other entities; and,
- whether the agency's programs could be performed more efficiently and effectively by consolidating them with those of another agency.

The following questions and answers summarize PEER's conclusions.

**Does a clear public need exist for regulation of Mississippi's agricultural aviation industry?**

*A clear public need exists for regulation of the state's agricultural aviation industry in order to protect the public from the risks posed by the industry. These risks include the safety, health, environmental, and economic risks associated with flying agricultural airplanes and applying agricultural products.*

**Does the Agricultural Aviation Board effectively regulate the state's agricultural aviation industry?**

*The Agricultural Aviation Board does not adequately perform its regulatory responsibilities related to examination of pilots and applicators for licensure, ongoing inspections of regulated facilities and equipment, and the imposition of appropriate disciplinary actions.*

PEER compared the Agricultural Aviation Board's testing practices to those of the Council on Licensure, Enforcement, and Regulation (CLEAR), which provides standard professional testing practices for regulatory boards. The Agricultural Aviation Board does not meet CLEAR's professional standards in the areas of test development, test administration, statistical analysis and research, scoring and reporting, or examination security. Because the board's written examination for pilots and applicators does not fully comply with professional testing standards, the board cannot ensure that it is licensing individuals who can provide competent aerial commercial agricultural application services to the public.

The Agricultural Aviation Board does not require documentation of its inspections of airplanes, equipment, or facilities used in agricultural aviation, and thus cannot ensure that it conducts inspections effectively, uniformly, and consistently.

Concerning its complaint intake process, the Agricultural Aviation Board does not adequately publicize how citizens may make complaints concerning agricultural aviation.

Concerning the board's enforcement process, the Agricultural Aviation Board does not impose penalties sufficient to deter and discipline violators. Further, the board allows its members to participate in penalty decisions involving their own companies. PEER found that:

- The Environmental Protection Agency (EPA), which has ultimate responsibility for enforcement of the Federal Insecticide, Fungicide and Rodenticide Act, has determined that the board has not enforced penalties consistently and fairly.
- The board did not comply with EPA's request to improve the board's penalty matrix and provide written justifications for penalty decisions. This contributed to EPA's decision to terminate its Memorandum of Agreement and the accompanying funding to the board.
- A board member participated in the disposition of a drift complaint case in which he was an interested party.



**To what extent do the Agricultural Aviation Board's programs and jurisdiction duplicate those of other entities?**

*Duplication of programs and jurisdiction between the Agricultural Aviation Board and federal and state agencies has resulted in confusion and unnecessary effort and costs.*

Five agencies have statutory responsibilities for regulating agricultural aviation in Mississippi: the Agricultural Aviation Board, the Department of Agriculture and Commerce's Bureau of Plant Industry, the Department of Environmental Quality, the Federal Aviation Administration, and the Environmental Protection Agency.

State law divides responsibility between the Agricultural Aviation Board and the Bureau of Plant Industry based on the type of product applied (hormonal versus non-hormonal). However, applicators cannot be divided into these two categories because no applicators currently only apply hormone-type herbicides. Thus the general public and state and federal agencies have been confused regarding the proper role of each agency in regulation of aerial application of pesticides and herbicides.

Also, because some regulatory responsibilities of relevant state and federal agencies overlap, applicators and pilots are subject to duplicate pilot examinations and inspections.

**Could the Agricultural Aviation Board's statutory responsibilities be performed more efficiently and effectively by consolidating them with those of another agency?**

*Yes, the duties and responsibilities of the Agricultural Aviation Board could be carried out by the Department of Agriculture's Bureau of Plant Industry, which would eliminate the duplication between the two agencies and place responsibility in an agency with a more structured approach to regulation.*

According to the Bureau of Plant Industry's Director, the duties currently being performed by the Agricultural Aviation Board could be delegated to his bureau if the fee system remained in place and he was given one additional employee. The Bureau of Plant Industry's Director noted that every state in EPA's Region IV area, with the exception of Mississippi, has agricultural aviation responsibilities under its Department of Agriculture.

## **Recommendations**

1. To improve efficiency and effectiveness in the regulation of agricultural aviation, reduce confusion, and improve accountability, the Legislature should consider transferring the duties and responsibilities of the

Agricultural Aviation Board back to the Department of Agriculture and Commerce.

2. Whichever agency is responsible for regulating the state's agricultural aviation industry should implement the following:

***Testing***

- Revise agricultural aviation written examinations to comply with professional testing standards, such as those promulgated by the Council on Licensure, Enforcement and Regulation (CLEAR).
- To avoid duplicating the flight performance exams given by the Federal Aviation Administration, eliminate state flight performance exams of pilots.

***Inspection***

- Establish formal policies and procedures governing inspections, such as the required frequency of inspections and the type of documentation required to show that inspections are being conducted in an appropriate manner.

***Complaint Process***

- Improve the public's access to the complaint process by establishing formal procedures to ensure that the public is aware of the complaint resolution process. The board should maintain a listing in local telephone directories and make information available to the public which describes the complaint process (e.g., a telephone number where persons can call to report a complaint, where to file complaints, what information is needed to respond to a complaint, and complainants' rights). With complaints outside the Agricultural Aviation Board's jurisdiction, the board should refer the public to the proper entity for action (e.g., agricultural aircraft accidents should be reported to the Federal Aviation Administration, wastewater disposal violations by applicators should be reported to the Department of Environmental Quality).

***Enforcement Actions***

- The Agricultural Aviation Board should develop formal, written standard operating procedures in the enforcement case process, including case review, evidence assessment, and penalty calculation. The board should also develop a

penalty policy provision that allows for escalation of penalties for recurring violators.

**For More Information or Clarification, Contact:**

PEER Committee  
P.O. Box 1204  
Jackson, MS 39215-1204  
(601) 359-1226  
<http://www.peer.state.ms.us>

Representative Herb Frierson, Chairman  
Poplarville, MS 601-795-6285

Senator Bill Canon, Vice Chairman  
Columbus, MS 662-328-3018

Senator Bob Dearing, Secretary  
Natchez, MS 601-442-0486

# A Review of the Agricultural Aviation Board

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## Introduction

### Authority

The PEER Committee authorized a review of Mississippi's Agricultural Aviation Board pursuant to the authority granted by MISS. CODE ANN. Section 5-3-57 et seq. (1972). This review is a "cycle review," which is not driven by specific complaints or allegations of misconduct.

### Scope and Method

MISS. CODE ANN. Section 69-21-127 repeals all provisions creating and empowering the State Board of Agricultural Aviation as of December 31, 2004. To aid the Legislature in deciding whether to re-enact the board, PEER approached this review as a sunset review. A sunset review determines whether an agency can justify its continued existence, based on a review of:

- whether a clear public need exists for the regulation of agricultural aviation;
- the agency's effectiveness in meeting that need;
- the extent to which the agency's programs and jurisdiction duplicate those of other entities; and,
- whether the agency's programs could be performed more efficiently and effectively by consolidating them with those of another agency.

PEER reviewed state and federal laws and intergovernmental agreements governing regulation of the agricultural aviation industry and rules, regulations, policies, and procedures regarding the Agricultural Aviation Board's licensing programs. PEER also examined Agricultural Aviation Board licensee files and complaint cases.

PEER interviewed staff and analyzed documents from other state agencies, associations, federal agencies, and other states.

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## Background

In 1966, the Mississippi Legislature created the Agricultural Aviation Board to regulate the state's agricultural aviation industry (excluding the regulation of hormone-type herbicides,\* which fall under the jurisdiction of the Department of Agriculture and Commerce's Bureau of Plant Industry) in order to protect the public from associated risks. Prior to creation of the Agricultural Aviation Board, the state's Department of Agriculture and Commerce was responsible for regulation of all products applied through agricultural aviation.

### Legal Authority

State law establishing the Agricultural Aviation Board is found in MISS. CODE ANN. § 69-21-101 (1972) et seq. MISS. CODE ANN. § 69-21-103 (1972) declares the purpose of the state's Agricultural Aviation Licensing Law of 1966 to be to:

***. . .supervise and regulate for the public good all commercial agricultural aerial application within the State of Mississippi and to establish and promote a close working relationship between agricultural aerial applicators and the Mississippi Department of Agriculture and Commerce, the licensing of all persons engaged in the aerial application of pesticides, poisons, seeds, and chemicals and the registration of all such commercial agricultural aircraft and pilots.***

Subsequent CODE sections establish the board (see next section) and grant specific authorities to the board, including the authority to:

- adopt rules and regulations necessary to regulate the application of chemicals and pesticides;

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\* MISS. CODE ANN. § 69-21-5 (1972) defines hormone-type herbicide as: ***“any substance or mixture of substances producing a physiological change in the plant tissue without burning, intended for preventing, destroying, repelling or mitigating any weed.”*** These chemicals alter the physiology of plants, thereby speeding up their growth cycle. Common hormone-type herbicides include 2, 4-D, and Dicamba. Common non-hormone-type herbicides (i.e., herbicides regulated by the Agricultural Aviation Board) include Malathion, Roundup, Command, and Clomazone.

- set professional standards for applicators and pilots;
- procure samples of spray and dust materials being applied and inspect any premises or equipment used in relation to the application of said materials;
- charge fees for applicator and pilot licenses; and,
- take disciplinary action against licensees, including license revocation and imposition of administrative fines of up to \$25,000 per violation.

The Agricultural Aviation Licensing Law also makes it unlawful and a misdemeanor to operate or do business as an applicator or pilot without a license and establishes civil penalties for violations of the article or rules and regulations established by the board.

## Board Membership and Staffing

MISS. CODE ANN. § 69-21-107 (1972) defines the membership of the Agricultural Aviation Board and establishes qualifications for board membership. The board is composed of five members: the chief of the Mississippi Department of Agriculture and Commerce's Bureau of Plant Industry and four licensed pilots who serve staggered four-year terms, appointed by the Governor from a list of agricultural aerial applicators submitted by the Mississippi Aerial Applicators Association. State law allows the board to maintain an office and employ necessary personnel, operating within the revenues they collect, to carry out the Agricultural Aviation Licensing Law. Currently, the board has two employees, a Deputy Director and Secretary, and an office in Eupora.

## Revenues and Expenditures

The Agricultural Aviation Board is a special fund agency funded entirely through licensing and examination fees and fines assessed on the agricultural aviation industry. From FY 1996 through FY 1999, the Agricultural Aviation Board also received a total of \$114,984 in federal funds from the Environmental Protection Agency to carry out responsibilities under a Memorandum of Agreement with the Environmental Protection Agency (EPA), although the agreement has since been terminated and the Agricultural Aviation Board no longer receives the funds (see discussion on page 17).

MISS. CODE ANN. § 69-21-119 authorizes the board to collect an annual fee of not more than \$500 for each aircraft owned,

operated, used, and employed in aerial application by an applicator. Effective July 2000, the Legislature set this fee at \$150. In FY 2000, the board licensed 300 agricultural aircraft.

The board also collects an annual fee of not more than \$250 for each pilot and/or applicator engaged in aerial application. Also effective July 2000, the Legislature set this fee at \$150. In FY 2000, the board licensed 297 pilots.

The board charges \$100 per licensing examination. Applicators/pilots must take the exam for initial licensure and must retake it each year that they do not attend required annual recertification courses.

Exhibit 1, page 6, shows Agricultural Aviation Board revenues and expenditures for fiscal years 1998 through 2000. The decline in Agricultural Aviation Board revenues in FY 1998 was due to a decline in EPA funding (see page 17), following higher first-year EPA funds for setting up the Agricultural Aviation Board office in Eupora. From the Agricultural Aviation Board's inception in FY 1966 until FY 1997, the board had been housed in Bureau of Plant Industry office space in Starkville at no charge to the board.

In FY 2000, salaries for the two employees were the board's major expenditure (72% of total expenditures), followed by travel and contractual services.



**Exhibit 1: Agricultural Aviation Board Revenues and Expenditures for Fiscal Years 1998 - 2000\***

| <u>Revenues</u>                                  | <u>FY 1998</u>  | <u>FY 1999</u>  | <u>FY 2000</u>  |
|--|-----------------|-----------------|-----------------|
| Cash balance-unencumbered                        | \$83,133        | \$103,740       | \$115,179       |
| General fund appropriation                       | 0               | 0               | 0               |
| Federal funds                                    | 31,384          | 29,200          | 0               |
| Other funds                                      | 0               | 0               | 0               |
| Fees   | 68,325          | 68,120          | 90,535          |
| Fines  | 5,990           | 9,265           | 6,560           |
| Less estimated cash available next fiscal period | -104,048        | -115,178        | -117,437        |
| <b>Total Revenues</b>                            | <b>\$84,784</b> | <b>\$95,147</b> | <b>\$94,837</b> |

| <u>Expenditures</u>        | <u>FY 1998</u>  | <u>FY 1999</u>  | <u>FY 2000</u>  |
|----------------------------|-----------------|-----------------|-----------------|
| Personnel                  | \$60,387        | \$63,062        | \$68,044        |
| Travel                     | 9,236           | 10,813          | 10,150          |
| Contractual services       | 12,753          | 15,196          | 14,062          |
| Commodities                | 1,724           | 2,376           | 2,580           |
| Equipment                  | 684             | 3,700           | 0               |
| Subsidies, loans, & grants | 0               | 0               | 0               |
| <b>Total Expenditures</b>  | <b>\$84,785</b> | <b>\$95,147</b> | <b>\$94,835</b> |

SOURCE: Board budget requests for fiscal years ending June 30, 2000, through June 30, 2002.

\*Some columns may not add exactly due to rounding.

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## Does a clear public need exist for regulation of Mississippi's agricultural aviation industry?

A clear public need exists for regulation of the state's agricultural aviation industry in order to protect the public from the risks posed by the industry. These risks include the safety, health, environmental, and economic risks associated with flying agricultural airplanes and applying agricultural products.

The risks associated with the agricultural aviation industry fall into four primary categories: safety, health, environmental, and economic.

The safety risk is the risk that the agricultural pilot will lose control of the aircraft, resulting in possible injury or death to the pilot or others. Special flying skills are necessary to execute the maneuvers necessary to apply agricultural products aerially, including the ability to operate aircraft at low altitudes around obstacles without stalling. Knowledge of load limits and proper attachment of application equipment is also critical to safe operation of agricultural aircraft.

The health risk is the risk that the applicator and pilots will improperly store, apply, or dispose of hazardous materials. One of the more common risks associated with the agricultural aviation industry is the drifting of hazardous materials during application to people in the vicinity of the application.

Drift also entails an environmental risk that hazardous materials will harm animals, water, grasses, plants, or trees in the surrounding area.

The economic risk includes an applicator's failure to apply the appropriate type and amount of product to the crop, resulting in failure to control the targeted problem or even damage to the crop. The problem of drift entails a potential economic risk to neighboring crops.

The safety risk is minimized by ensuring that aviation pilots know how to operate their aircraft properly and by ensuring that the aircraft they fly are in proper operating condition. Risks related to the storage, application, and disposal of chemicals and pesticides used in aerial agricultural application are minimized by ensuring that applicators and pilots know and implement proper storage, application, and disposal techniques.

In general, regulatory bodies ensure that pilots and applicators have the knowledge to apply agricultural products safely through licensing examinations. They help to ensure that pilots and applicators are implementing safe practices through ongoing inspections of agricultural aircraft operations. They address

unsafe practices by conducting thorough investigations of violations and imposing appropriate penalties.

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## Does the Agricultural Aviation Board effectively regulate the state's agricultural aviation industry?

The Agricultural Aviation Board does not adequately perform its regulatory responsibilities related to examination of pilots and applicators for licensure; ongoing inspections of regulated facilities and equipment; and the imposition of appropriate disciplinary actions for violations of applicable laws, rules, and regulations.

Regulatory boards are empowered to establish the criteria that applicants must meet to obtain credentials. Such criteria are designed to ensure that licensees possess the appropriate knowledge and skills in sufficient degree to perform important occupational activities safely and effectively. Regulatory boards have a responsibility to function on behalf of the general public, as well as the consuming public who pay for services received from regulated professionals. Performance of a regulatory board can be deemed to be adequate if the board:

- uses valid and reliable methods to test the qualifications of individuals to perform the regulated activity;
- inspects licensees' compliance with licensure requirements, using uniform and consistent methods; and,
- protects the interests of the public by promptly and thoroughly investigating and resolving complaints against licensees, including establishing and uniformly imposing appropriate disciplinary actions (e.g. fines, license revocations, and suspensions) on violators.

The sections that follow address the Agricultural Aviation Board's deficiencies in regulating the state's agricultural aviation industry.

### Written Examinations of Pilots and Applicators

***Because the Agricultural Aviation Board's written examination for pilots and applicators does not fully comply with professional testing standards, the board cannot ensure that it is licensing individuals who can provide competent aerial commercial agricultural application services to the public.***

#### Testing Practices of the Agricultural Aviation Board

Agricultural Aviation Board regulations require applicators and pilots to take a written examination of their knowledge of correct pesticide application as part of the licensure process. The board administers two written examinations: a general standards

examination and a specific standards examination for certification of commercial aerial agricultural applicators.

The general standards examination consists of questions primarily copied from a manual entitled *Applying Pesticides Correctly: A Guide for Private and Commercial Applicators in Mississippi*, developed by the United States Department of Agriculture and the U.S. Environmental Protection Agency. The information contained in this manual is the threshold level deemed necessary for pesticide applicators to meet the applicator training requirements of the Federal Insecticide, Fungicide, and Rodenticide Act of 1972. The specific standards examination consists of questions copied from the Mississippi Cooperative Extension Service manual entitled *Aerial Application: A Self-Study Pesticide Applicator Training Manual For the Commercial Applicator*.

The board's Deputy Director or Secretary conduct written examinations in the Eupora office. The Deputy Director also meets applicators and pilots at a designated location to conduct examinations. The Deputy Director and Secretary grade the examinations based on an answer key. Both examinations require applicator and pilot applicants to answer correctly thirty-five questions, for a passing grade of seventy percent.

## Recognized Testing Standards for Professional Regulatory Boards

CLEAR's standards for professional testing practices are consistent with testing practices advocated by other national organizations, such as the American Psychological Association.

The Council on Licensure, Enforcement, and Regulation (CLEAR) provides standard professional testing practices for regulatory boards. These standards address test development, test administration, statistical analysis and research, scoring and reporting, and examination security. CLEAR's standards for professional testing practices are consistent with testing practices advocated by other national organizations, such as the American Research Association, the American Psychological Association, and the National Council on Measurement in Education.

CLEAR's testing practices serve to develop valid and reliable examination procedures for regulatory boards. Valid testing is essential for the board to maintain that occupational performance standards are measured and complied with for licensure. Reliable testing allows regulatory boards to license consistently applicants who are determined competent for professional practice. A regulatory board such as the Agricultural Aviation Board should have documentation of the development and standardization of the procedures and rationales utilized in the examination processes to provide evidence of valid and reliable testing.

## The Agricultural Aviation Board's Compliance with Recognized Testing Standards

*The Agricultural Aviation Board does not meet CLEAR's professional standards in the areas of test development, test administration, statistical analysis and research, scoring and reporting, or examination security.*

In order to ensure that its testing practices are valid and reliable, the Agricultural Aviation Board should adhere to standard testing practices such as those provided by CLEAR. As shown in Exhibit 2 on page 12, the board's examination process does not meet the standards for professional testing.

The board could provide no evidence to PEER that it has analyzed the skills that an agricultural aerial applicator should have prior to developing its examination or that the exam administered actually tests for the presence of such skills.

Specifically, the board could provide no evidence to PEER that it has analyzed the skills that an agricultural aerial applicator should have prior to developing its examination or that the exam administered tests for the presence of such skills. Also, the board has not documented that it has established seventy percent as the score necessary to establish minimum competence.

Concerning test administration, the board has not established standard procedures for administering tests to applicants. It has not documented that it has informed applicants of administration policies, procedures, scoring method, or rules on reporting test scores.

The board does not statistically analyze test results to determine which examination questions need revision. Also, the board does not have written procedures to ensure applicants' due process in scoring and reporting of test results.

Since the board administers only one version of each exam, it should take necessary steps to maintain test confidentiality.

Concerning examination security, the board's examination process does not address the security of test documents. Since the board administers only one version of each exam, it should take necessary steps to maintain test confidentiality.

If tests are not valid and reliable, the board may license incompetent applicants or deny competent applicants the opportunity to begin the practice of agricultural aviation. Without documentation of testing practices, the board is unable to justify current testing and may be subject to potential lawsuits by candidates who have been restricted from practice.

**Exhibit 2: Analysis of the Testing Practices of the Agricultural Aviation Board**

| Standards                         | Actions Needed To Meet Testing Standards   | Did The Board Follow Professional Testing Standards?  |
|-----------------------------------|--|---|
| Test Development                  | <ul style="list-style-type: none"> <li>-analyze skills and knowledge required for competency</li> <li>-ensure test includes questions on necessary applicator and pilot skills</li> <li>-set a valid passing score based on entry-level knowledge and skills</li> <li>-develop oral, practical, and essay exams with standard answers that can be consistently graded</li> </ul> | No. The board could not document that it had analyzed agricultural aerial application skill, tested each necessary skill, or established a valid passing score.   |
| Test Administration               | <ul style="list-style-type: none"> <li>-provide applicants with detailed information on testing times and dates, test content, test site conditions, grading procedures, and disclosure of test scores to applicants</li> <li>-develop a written plan for accommodating candidates with disabilities which complies with the Americans with Disabilities Act.</li> </ul>         | The board did not document standard test administration procedures. The board could not document that it had informed applicants of administration policies, procedures, scoring method, or rules on reporting test scores.                                   |
| Statistical Analysis and Research | <ul style="list-style-type: none"> <li>-analyze test results to ensure the test is measuring appropriate knowledge and skills</li> </ul>   | The board did not use statistical analysis research in the development or review of general and specific standard exams.  |
| Scoring and Reporting             | <ul style="list-style-type: none"> <li>-ensure that tests are graded and test results are reported in a fair and uniform manner</li> </ul>   | The board does not have written procedures to ensure applicants due process related to test scoring concerns.   |
| Examination Security              | <ul style="list-style-type: none"> <li>-ensure secrecy of test questions in advance</li> <li>-maintain test materials in secure locations</li> <li>-ensure students have no access to tests during printing, storage, transportation, and distribution</li> </ul>  | The board has not documented procedures used to ensure examination security. Since the board administers only one version of the general and specific standards exams for applicants, the board should take necessary steps to maintain test confidentiality. |

SOURCE: PEER analysis of Agricultural Aviation Board testing practices in comparison to CLEAR's standard testing practices.

## Ongoing Inspections of Agricultural Aviation Operations

***Because the Agricultural Aviation Board does not require documentation of its inspections of airplanes, equipment, or facilities used in agricultural aviation, the board cannot ensure that it conducts inspections effectively, uniformly, and consistently.***

A key component of any regulatory system is a formal process for periodically inspecting licensees' compliance with licensure requirements. The Agricultural Aviation Board should have formal, written policies and procedures regarding inspection that would ensure that the airplanes, equipment, and facilities used for agricultural aviation are inspected uniformly and consistently for safety and operating effectiveness.

The Agricultural Aviation Board does not have formal policies and procedures governing inspections, nor does the board require reports from the staff concerning inspections. This type of information is critical to holding the Deputy Director accountable for performing his regulatory duties and to determining if the agency is effectively fulfilling one of its chief regulatory functions.

During CY 2000, the Agricultural Aviation Board's Deputy Director completed no inspection forms for any of the inspections that he claims to have conducted during the year.

PEER's review of the Agricultural Aviation Board's inspection files for CY 1999 showed that the board only inspected 47% of licensed applicators (69 of 146) in that year. During CY 2000, the Agricultural Aviation Board's Deputy Director completed no inspection forms for any of the inspections that he claims to have conducted during the year. Thus the board has no documentation of which applicators' airplanes, equipment, and facilities were inspected, how often they were inspected, or whether they had complied with regulations. This condition severely inhibits the board's ability to regulate agricultural aviation effectively.

The fact that applicators not inspected by the board have repeated drift complaints during the last two years indicates a failure by the board to protect the public.

In CY 1999, the Agricultural Aviation Board Deputy Director did complete inspection forms, which PEER reviewed to determine the extent to which the board inspected all licensed applicators. Of the sixty-two drift complaint cases (involving thirty-five applicators) awaiting Agricultural Aviation Board review and disciplinary action as of March 2001, during CY 1999 Agricultural Aviation Board had not inspected 34% of the applicators with cases pending (i.e., twelve of thirty-five). One of the applicators that the Agricultural Aviation Board had not inspected has a total of six drift complaint cases awaiting disciplinary action. The fact that applicators not inspected by the board have repeated drift complaints during the last two years indicates a failure by the board to protect the public.



## Complaint Intake Process

***The Agricultural Aviation Board does not adequately publicize how citizens may make complaints concerning agricultural aviation.***

The Agricultural Aviation Board has not provided information to the public on the complaint process and has no formalized consumer awareness program. Although the board has a telephone and a permanent office in Eupora, the board has not published a telephone number in local telephone directories to give the public access to the board for making inquiries or filing complaints.

Without access to telephone contact information for agricultural aviation investigations and complaints, the timeliness of collecting samples and documenting pertinent information related to state or federal law violations could be severely hampered.

Without such a listing in local telephone directories, the public does not have ready access to the board and many potential complainants may give up without making a complaint. Also, persons should be informed as to whether the board or other specific state or federal agencies should be contacted for complaints related to aerial agricultural application. Without access to telephone contact information for agricultural aviation investigations and complaints, the timeliness of collecting samples and documenting pertinent information related to state or federal law violations could be severely hampered.

## Enforcement Actions against Applicators

***The Agricultural Aviation Board does not impose penalties sufficient to deter and discipline violators. Further, the board allows its members to participate in penalty decisions involving their own companies.***

Although the Agricultural Aviation Board imposes penalties for agricultural aviation violations concerning non-hormonal applications (the Bureau of Plant Industry imposes the penalties for hormone-type applications), by longstanding practice, the Bureau of Plant Industry is the agency that actually investigates complaints involving damages from the negligence of aerial application of all products, both hormone-type and non-hormonal. Bureau of Plant Industry investigators take samples, review applicator spraying records, and prepare a complaint narrative that includes conclusions relative to the merits of the case. If the Bureau of Plant Industry determines that a case involving application of a non-hormone type product has merit, it forwards the case to the Agricultural Aviation Board for disciplinary action.

A key component of any effective regulatory system is the availability and implementation of appropriate penalties for regulatory violations. Such a system should have a range of penalties based upon the severity of the violation. The Agricultural Aviation Board has adequate penalties available to it

under law. MISS. CODE ANN. § 69-21-121 provides for disciplinary actions ranging from probation to license revocation, and § 69-21-155 provides for administrative penalties of up to \$25,000 per violation.

**The Agricultural Aviation Board has developed a penalty matrix that is designed to promote uniformity in the imposition of penalties.**

As shown in Exhibit 3 on page 16, the Agricultural Aviation Board has developed a penalty matrix that is designed to promote uniformity in the imposition of penalties. The amount of the penalty is based on the severity of the violation, as determined by each board member using a “gravity matrix” form (refer to Appendix A on page 31). As shown on the form, the rater assigns from 0 to 4 points in each of the following categories: human harm, environmental harm, careless or negligent application, compliance record, and culpability. The maximum score that a case could receive on this form is twenty points, which score would reflect willful, negligent application of a toxic chemical to humans and the environment, following other violations within the past twelve months. The board averages the scores from each board member’s gravity matrix form to arrive at the value used in determining the appropriate enforcement remedy.

*The Environmental Protection Agency, which has ultimate responsibility for enforcement of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), has determined that the Agricultural Aviation Board has not enforced penalties consistently and fairly.*

**The EPA has raised concerns related to the Agricultural Aviation Board’s weak enforcement of state and federal pesticide use laws.**

The Environmental Protection Agency, the federal agency ultimately responsible for enforcing the FIFRA, conducts ongoing evaluations of the state’s performance in regulating agricultural aviation. EPA’s biannual reviews of the Agricultural Aviation Board’s penalty decisions in drift complaint cases have raised concerns related to the board’s weak enforcement of state and federal pesticide use laws. Specifically, EPA reviews of drift cases have identified the following problem areas:

- penalty miscalculations;
- inconsistent and improper use of the penalty matrix;
- large penalty reductions without justification; and,
- inappropriate penalty determinations.

(Appendix B, page 32, provides a summary of drift complaint cases and Agricultural Aviation Board disciplinary actions.)

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**Exhibit 3 : Agricultural Aviation Board Penalty Matrix**

| <b>Value</b> | <b>Enforcement Remedy</b>   |
|--------------|---|
| 0-4          | Notice of Warning -\$1,500  |
| 5-8          | \$1,500 -\$2,500  |
| 9-12         | \$2,500-\$3,500   |
| 13-16        | \$3,500-\$4,500 and/or modify or suspend license for one year   |
| 17-20        | <ol style="list-style-type: none"> <li>1. \$4,500-\$5,500 and a mandatory license modification for 1 year</li> <li>2. \$5,500-\$25,000 (and/or) <ul style="list-style-type: none"> <li>• modify or suspend license for one year</li> <li>• license revocation</li> </ul> </li> <li>3. \$25,000 or <ul style="list-style-type: none"> <li>• mandatory suspension for one year</li> <li>• license revocation</li> </ul> </li> </ol> |

SOURCE: Agricultural Aviation Board

Since at least FY 1994, EPA has been noting the Agricultural Aviation Board's failure to impose adequate penalties on violators. The following is an excerpt from EPA's 1995 mid-year evaluation report:

***At a September, 1994, meeting of the Board attended by EPA personnel, EPA conveyed its concern about the Board's decisions regarding actions taken against aerial applicators. Many cases are unresolved, and in some cases where investigations clearly indicated drift occurred due to***

***applicator negligence, fines were levied for poor record keeping instead of misapplication. There is the impression that this board, made up of pesticide applicators, is failing to execute the duties with which it is charged--that is, to provide fair and equitable enforcement action in accordance with the state's enforcement response policy.*** [PEER emphasis added]

As an example of EPA's concern that penalties assessed by the board were not appropriate to insure the responsible use of pesticide, in 1998 the EPA reviewed a Mississippi case concerning the drifting of an aerial application of Malathion to two teenaged girls practicing cheerleading in their front yard. The children were taken to the hospital after exhibiting signs of possible pesticide exposure. The Agricultural Aviation Board imposed an administrative penalty of \$125 in the case. As part of his review of the case, EPA's Chief of the Pesticide Section noted that the penalty was "pitifully low" and "only accentuates the inevitable comparison to other penalties and the cries of favoritism."

According to an EPA official, "a revisiting of the penalty matrix with modifications is necessary."

In a 1999 letter, EPA's Chief of the Pesticides and Toxic Substances Branch told the Bureau of Plant Industry's Director that she still had "serious concerns" regarding some of the drift cases considered by Agricultural Aviation Board, and that "a revisiting of the penalty matrix with modifications is necessary."

*The Agricultural Aviation Board did not comply with EPA's request to improve the board's penalty matrix and provide written justifications for penalty decisions. This contributed to EPA's decision to terminate its Memorandum of Agreement and the accompanying funding to the Agricultural Aviation Board.*

In FY 1997, Agricultural Aviation Board entered into a Memorandum of Agreement with the Environmental Protection Agency to "implement, maintain and strengthen a comprehensive pesticide enforcement, education and compliance assistance program within the agricultural aviation industry." The agencies were to work together to provide uniform enforcement of state and federal pesticide statutes. As part of its first-year agreement, EPA provided \$54,400 in federal funds to pay for equipment purchases related to establishing an Agricultural Aviation Board office in Eupora and travel for the Agricultural Aviation Board's Deputy Director. In FY 1998 and FY 1999, the board received \$31,384 and \$29,200, respectively, in federal funds from EPA.

Prior to the anticipated annual renewal of its Memorandum of Agreement with Agricultural Aviation Board, in 1999 the EPA asked the board to develop a comprehensive document which contained: (1) standard operating procedures in the enforcement case process including case review, evidence assessment, and penalty calculation; (2) a revised and narrowly defined penalty matrix in which like violations receive like penalties; (3) a penalty

policy provision which allows for escalation of penalties for reoccurring violators; (4) a protocol for the use of the penalty matrix which includes mitigation factors for penalty reductions from the original penalty assessment; and, (5) a written justification for the application of penalty reductions. EPA staff met with the Agricultural Aviation Board to discuss this request in October 1999. In January 2000, EPA documented the request to the Agricultural Aviation Board in writing.

When the Agricultural Aviation Board failed to provide EPA with specific work program output accomplishments and a work plan component of activities (as required by federal regulations), EPA terminated its Memorandum of Agreement, and accompanying funding, with the board.

When the board failed to provide EPA with specific work program output accomplishments (as required by 40 CFR §35.130) and a work plan component of activities (as required by 40 CFR §35.140), EPA submitted a letter to the Bureau of Plant Industry's Director on January 6, 2000, terminating its Memorandum of Agreement with the board. In its FY 2000 Mid-Year Review, EPA commented on its efforts to meet with the Agricultural Aviation Board at the end of the FY 1999 grant period to discuss the "longstanding adequacy issue of pesticide use enforcement." EPA concluded that it had not received satisfactory documents that would reflect a willingness and earnest attempt to improve the board's enforcement process.

In March 2001, PEER interviewed EPA's Pesticides Section Chief in the Atlanta regional office, who said that EPA currently is requiring the Agricultural Aviation Board to notify EPA of each enforcement action prior to implementation.

*An Agricultural Aviation Board member participated in disposition of a drift complaint case in which he was an interested party.*

In addition to reviewing EPA's documentation of problems with the Agricultural Aviation Board's disposition of drift cases, PEER reviewed the seven drift complaint cases on file in the board's Eupora office as of February 2001.

During its review, PEER found that one case involved Holcomb Air Service, an aerial agricultural applicator firm owned and operated by Agricultural Aviation Board member Rudy Holcomb. Mr. Holcomb is listed as president of the company. The complaint, which was filed on April 14, 2000, was against Rudy Holcomb's son, Karl Holcomb, who is a pilot for Holcomb Air Service. PEER determined that Rudy Holcomb, as a board member, completed a gravity matrix form for the case involving his son, which form was used to arrive at the penalty decision for the case on September 28, 2000.

In this case, a Bureau of Plant Industry inspector found evidence consistent with the use of Gramoxone Extra, a herbicide, on ornamental and garden plants belonging to eighteen homeowners. The inspector found that the cause was the off-target movement of the Gramoxone Extra applied by Holcomb Air Services for a nearby customer. This was a label violation in that the Gramoxone

label specifically prohibits use of the pesticide when weather conditions favor drift from the treated area.

**A board member participated in a ruling on a drift complaint case involving his son and the company that the board member owns. This raises concerns that board members' impartiality might reasonably be questioned.**

On September 28, 2000, the board reviewed the Holcomb Air case and proposed a penalty of \$875, an amount computed by averaging the amounts yielded by the various penalty ratings given by each board member participating in this drift complaint case, including Rudy Holcomb. Although this penalty amount is consistent with the scale on the gravity matrix, Mr. Holcomb's participation in the board's ruling of the drift complaint case involving his business raises concern of whether public confidence in the Agricultural Aviation Board's decisionmaking is eroded by the board's irresponsible or improper conduct.

Generally speaking, adjudicators such as members of the Agricultural Aviation Board are expected to be impartial and unbiased. A judge should disqualify himself in a proceeding in which his impartiality might reasonably be questioned. Not doing so compromises the integrity of the board. The Agricultural Aviation Board currently has no formal written policy regarding circumstances under which a board member should recuse herself or himself from drift complaint cases.

The fact that Rudy Holcomb participated in a ruling on a drift complaint case involving his son and the company that Mr. Holcomb owns and operates presents circumstances where as a board member his impartiality might reasonably be questioned. Mr. Holcomb's relationship to the company is material and his financial interest in the company is substantial. Thus, as a board member, Mr. Holcomb should have disqualified himself and recused himself from participating in the board's proceeding.

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## To what extent do the Agricultural Aviation Board's programs and jurisdiction duplicate those of other entities?

Duplication of programs and jurisdiction between the Agricultural Aviation Board and federal and state agencies has resulted in confusion and unnecessary effort and costs.

### State and Federal Agencies Responsible for Addressing the Risks Associated with Agricultural Aviation

As shown in Exhibit 4 on page 27, considerable duplication exists in agencies' statutory responsibilities for regulating agricultural aviation in Mississippi. The following sections discuss this overlap in terms of the type of risk being addressed. For purposes of this discussion, PEER divided the risks associated with agricultural aviation into two primary categories:

- safety of the aircraft and its operation; and,
- risks associated with the agricultural products being applied by agricultural aviators (i.e., all other risks: health, environmental, and economic).

#### The Safety Risk

As shown in Exhibit 4 on page 27, two entities (the Federal Aviation Administration and the Agricultural Aviation Board) have statutory authority in Mississippi to license and certify agricultural aviation pilots and to regulate their aircraft for airworthiness.

***Federal law gives the Federal Aviation Administration complete jurisdiction over aircraft safety, maintenance, and pilot training.***

By federal law, the Federal Aviation Administration has complete jurisdiction over aircraft safety, maintenance, and pilot training. 14 CFR 137.1 et seq. sets out specific standards for agricultural aviation regulation. These regulations require that FAA certify all agricultural aviation pilots for agricultural aviation flying, based on successful completion of knowledge and skill tests in agricultural aviation. FAA testing covers the pilot's knowledge of preparation before flight, including surveys of the land to be treated. FAA also tests the performance capabilities and

operating limitations of the aircraft to be used. Commercial operators, a classification which corresponds approximately to an applicator as used in Mississippi law, must have at least one pilot who is licensed under law with one airworthy aircraft.

Because of the Federal Aviation Administration's complete authority over the licensing of pilots and inspection of aircraft, including certification authority for agricultural aviation, state regulation of agricultural aircraft and pilots for safety purposes is largely redundant.

As shown in Exhibit 4, under state law, the Agricultural Aviation Board has authority to license pilots and applicators. Because of the Federal Aviation Administration's complete authority over the licensing of pilots and inspection of aircraft, including certification authority for agricultural aviation, state regulation of agricultural aircraft and pilots for safety purposes is largely redundant, resulting in unnecessary state government expenses as well as an unnecessary burden on the agricultural aviation industry, because pilot must take flight performance exams administered by both the Federal Aviation Administration and the Agricultural Aviation Board.

## The Agricultural Product Application Risk

As shown in Exhibit 4 on page 27, three state agencies and two federal agencies have statutory responsibility for regulating the storage, application, and disposal of the agricultural products used in the agricultural aviation industry.

***State law makes the state Agricultural Aviation Board responsible for regulating aerial application of non-hormonal agricultural products.***

Established under CODE Section 69-21-101 et seq., the Agricultural Aviation Board is responsible for regulating the non-hormonal segment of Mississippi's agricultural aviation industry (see discussion on page 3). Under state law, the Agricultural Aviation Board may promulgate rules for restricting the methods of applying non-hormonal products, as well as the conditions under which such may be applied. The board may also restrict the use of chemicals that threaten the safety of the public. The board may inspect the facilities and records of licensees and may take disciplinary action against licensees who violate the rules.

***State law gives the state Department of Agriculture and Commerce's Bureau of Plant Industry broad authority over the use of pesticides and herbicides, including specific responsibility for regulating aerial application of hormone-type herbicides.***

The Bureau of Plant Industry, a component of the Department of Agriculture and Commerce, has broad authority over the use of pesticides and herbicides in Mississippi. Of particular importance to aerial applicators are the provisions of CODE Sections 69-21-1 et seq., which regulate the use of hormone-type herbicides. Section 69-21-7 prohibits any person from applying such a



herbicide without first becoming licensed by the Commissioner of Agriculture and Commerce.

The commissioner may revoke or suspend a license of any person who has made fraudulent representations in an application or with respect to business practices, and further, may take such action against a licensee who performs in a negligent or careless manner, or who violates the commissioner's regulations. Regulations address such subjects as the control for drift of materials, examination of applicants on the proper way of applying herbicides, and proper equipment to be used. The commissioner may inspect equipment used in applying hormone herbicides. Criminal penalties may be assessed against persons who violate the provisions of CODE Section 69-21-1 et seq.

Also related to the regulation of aerial application of herbicides and pesticides is the Bureau of Plant Industry's authority under the Mississippi Pesticide Law of 1975. This act, codified as MISS. CODE ANN. Sections 69-23-1 et seq., is essentially a regulatory structure for the sale and distribution of pesticides. Of interest to aerial applicators is Section 69-23-11, which authorizes the commissioner access to places where pesticides are stored for use and application. The bureau may promulgate rules governing the legal methods of storing pesticides.

***The state Department of Environmental Quality has responsibility for environmental protection, including issuance of wastewater permits to aerial applicators' ground facilities.***

The Department of Environmental Quality is the Mississippi state agency with general responsibility over environmental protection. In furtherance of its environmental protection mission, the agency has authority through the Mississippi Air and Water Pollution Control Law (MISS. CODE ANN. Section 49-17-1 et seq.) to issue wastewater permits to aerial applicators' ground operation facilities.

***The Federal Aviation Administration regulates use and handling of poisons used in agricultural aviation.***

At the federal level, as part of its authority over agricultural aviation, the Federal Aviation Administration regulates the use and handling of poisons used in agricultural aviation. Specifically, 14 CFR 147.37 bars dispensing of chemicals in a manner hazardous to persons or property. In addition, 14 CFR 137.39 bars dispensing of chemicals in any manner which is contrary to registered uses, label procedures, or any dispensing in violation of law. The FAA may inspect agricultural aircraft operations, including on-the-job inspections to insure compliance with regulations.

***The federal Environmental Protection Agency regulates the sale and use of pesticides in the United States.***

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended (7 USC Section 136), requires EPA to regulate the sale and use of pesticides in the United States. The act directs EPA to restrict the use of pesticides as necessary to prevent unreasonable adverse effects on people and the environment, taking into account the costs and benefits of various pesticide uses.

***The Environmental Protection Agency and the Department of Agriculture's Bureau of Plant Industry jointly enforce the Federal Insecticide, Fungicide, and Rodenticide Act in Mississippi.***

Federal law contemplates that a state will have primary responsibility for enforcing pesticide and herbicide regulations under FIFRA. Under Section 7, USC 136w-1, a state will have primary responsibility for enforcing FIFRA if it has adopted adequate pesticide use laws and regulations, an adequate procedure to enforce these laws, and methods for documenting such enforcement. Only in those states that fail to do this will the EPA directly enforce FIFRA. In 1972, Governor Bill Waller designated the Mississippi Department of Agriculture and Commerce's Division of Plant Industry as the state entity responsible for administering the state plan for certification of pesticide applicators throughout Mississippi.

In accordance with Section 26 of FIFRA, the Mississippi Department of Agriculture and Commerce has been granted primary enforcement responsibility for pesticide use violations. Under Section 23 of FIFRA, EPA also entered into an agreement with the Mississippi Department of Agriculture and Commerce to cooperate with the Environmental Protection Agency in the enforcement of FIFRA. EPA reviews the Bureau of Plant Industry's drift complaint cases as part of its cooperative agreement with the Department of Agriculture and Commerce.

## **Problems with Distribution of Regulatory Responsibilities**

The current distribution of agricultural aviation responsibilities in Mississippi creates a confused regulatory environment and unnecessary and costly duplication of licensing and inspections of applicators, their pilots, and equipment.

## Confused Regulatory Environment

*The division of regulatory responsibility between the Agricultural Aviation Board and the Bureau of Plant Industry based on the type of product applied creates confusion.*

Although state law divides primary responsibility for regulation of agricultural aviation between the Agricultural Aviation Board and the Bureau of Plant Industry, based on the type of product being applied (hormonal versus non-hormonal), PEER found that no applicator only applies hormone-type herbicides.

As noted on page 3, state law divides primary responsibility for regulation of agricultural aviation between the Agricultural Aviation Board and the Bureau of Plant Industry, based on the type of product being applied (hormonal versus non-hormonal). However, applicators cannot be divided into hormone-type applicators versus non-hormone-type. PEER compared the Bureau of Plant Industry's list of hormone-type herbicide applicators with the Agricultural Aviation Board's non-hormone type applicators and found that no applicator only applies hormone-type herbicides. More specifically, as of January 2001, 60% of the state's 124 licensed aerial applicators and 44% of the 297 agricultural aviation pilots licensed through the board used hormone-type herbicides, and all of these applicators also applied non-hormone-type products. In these cases, state law requires both agencies to license and regulate the same applicators and pilots, resulting in confusion among external parties such as the EPA and the general public, and unnecessary duplication of regulatory responsibilities.

As a direct result of the attempt to split authority between the Agricultural Aviation Board and the Bureau of Plant Industry, the general public and state and federal agencies have been confused and mistaken regarding the proper role of each agency in regulation of aerial application of herbicides and pesticides. While state law seemingly makes a clear mandate to the Agricultural Aviation Board to regulate the aerial application of pesticides and non-hormone-type herbicides, both the Mississippi Attorney General and the Environmental Protection Agency concluded otherwise in the late 1970s, concluding that the Bureau of Plant Industry had the legal authority to regulate both forms of application for purposes of enforcement of FIFRA. In an opinion dated August 8, 1975, modified June 1, 1978, the Mississippi Attorney General opined that Bureau of Plant Industry had the legal authority to regulate application of insecticides, fungicides, and rodenticides as contemplated under federal law. In reliance thereon, the Environmental Protection Agency approved the Bureau of Plant Industry's plan for enforcement of the federal act.

In subsequent years, the EPA has come to doubt whether the Bureau of Plant Industry has authority to enforce federal law on aerial applicators, as the bureau is given a very limited state mandate for enforcement of aerial application of herbicides and pesticides. On March 14, 2000, the EPA raised these doubts to the Department of Agriculture and Commerce and requested a new Attorney General's opinion of the matter. On June 30, 2000, the Attorney General issued a new opinion detailing Mississippi's fragmented legal authority over aerial application of pesticides

and herbicides and confirmed EPA's recent concerns by opining that Bureau of Plant Industry's authority over aerial application is limited to the application of hormone-type herbicides.

Some of the confusion may have been the direct result of provisions in law which contradict each other. Under the Mississippi Pesticide Law of 1975, the Bureau of Plant Industry is given authority generally over the use of pesticides and herbicides that are used contrary to manufacturer's directions [see MISS. CODE ANN. § 69-23-5(2)(d)]. Further, under the Mississippi Pesticide Application Law of 1975, enacted to regulate pesticides and herbicides regulated under the Federal Insecticide, Fungicide, and Rodenticide Act, the Bureau of Plant Industry is given authority to investigate complaints of the unwarranted use of pesticides (see MISS. CODE ANN. § 69-23-123). These broad provisions would seem to give the Bureau of Plant Industry authority over all matters related to application of pesticides and herbicides, including aerial spray drift concerns, yet MISS. CODE ANN. § 69-21-101 et seq. (1972) grant authority over aerial pesticide and non-hormone-type herbicide spraying to the Agricultural Aviation Board.

In light of the broad language used in these provisions of law, it is not unreasonable for regulators to have drawn an erroneous conclusion regarding the authority of the state agencies involved in the regulation of pesticide and herbicide uses.

Both the Bureau of Plant Industry and Agricultural Aviation Board have responsibility for administering the state plan for certification of pesticide applicators, but the specific limits of each entity's authority under state law are not completely clear.

The effect of the Attorney General's opinion is to confirm that two state entities (Bureau of Plant Industry and Agricultural Aviation Board) have responsibility for administering the state plan for certification of pesticide applicators, but the specific limits of each entity's authority under state law are not completely clear. For example, Bureau of Plant Industry, under its legal authority to investigate misapplication of pesticides, continues to investigate all agricultural aviation drift complaints, regardless of whether the drift is hormone-type or other. Therefore, despite the Attorney General's opinion, the separation of authority for agricultural aviation established in state law continues to create confusion.

## **Duplication of Examinations and Inspections of Applicators, Pilots, and Equipment**

***Because some regulatory responsibilities of relevant state and federal agencies overlap, applicators and pilots are subject to duplicate pilot examinations and inspections.***

Exhibit 4, page 27, shows federal and state statutory authority for regulation of agricultural aviation by function for the Agricultural Aviation Board, the Bureau of Plant Industry, the Department of Environmental Quality, the Federal Aviation Administration, and the Environmental Protection Agency. As shown in the exhibit,

four different entities are responsible for carrying out licensing, certification, and inspection functions.

**Both the Agricultural Aviation Board and the Bureau of Plant Industry require applicants to complete an application form for licensure, provide proof of bond or insurance, and take a written examination.**

PEER reviewed the application requirements and regulation practices of the Agricultural Aviation Board and the Bureau of Plant Industry and determined that similar licensing and inspections impose duplicative requirements for applicators and pilots involved in the aerial application of hormone-type and non-hormone-type herbicides and pesticides. Further, the Department of Environmental Quality conducts its own inspections of aerial aviation facilities to ensure proper storage and disposal of materials. Both the Agricultural Aviation Board and the Bureau of Plant Industry require applicants to complete an application form for licensure, provide proof of bond or insurance, and take a written examination. Non-resident licensees are required to complete of power of attorney forms for submission to the Secretary of State.

**Both the Agricultural Aviation Board and the FAA conduct flight examinations of agricultural aviation pilots. Both agencies also inspect the equipment used in aerially dispensing agricultural products.**

Both the Agricultural Aviation Board and the FAA conduct flight examinations of agricultural aviation pilots. In order to obtain an agricultural aviation pilot's certificate from the FAA, the applicant must successfully complete a flight examination conducted by FAA-certified flight examiners, who are all employees of the FAA. As part of the examination process for Agricultural Aviation Board pilot licensure, the Agricultural Aviation Board's Deputy Director also conducts a flight examination to determine whether the pilot demonstrates safe flight and application procedures in an agricultural aircraft. Further, both Agricultural Aviation Board and FAA inspect the equipment used in aerially dispensing agricultural products.

State and federal laws and regulations require these agencies to regulate applicators and pilots, resulting in confusion among external parties such as the EPA and the general public, unnecessary duplication of regulatory responsibilities, and associated costs to the state.

**Exhibit 4: Legal Authority for Regulation of Agricultural Aviation in Mississippi**

| Function                     | Agricultural Aviation Board (1) | BPI (2) | DEQ (3) | FAA (4) | EPA (5) |
|------------------------------|---------------------------------|---------|---------|---------|---------|
| License/certify pilots       |                                 |         |         |         |         |
| License/certify applicators  |                                 |         |         |         |         |
| Inspect equipment            |                                 |         |         |         |         |
| Inspect applicator site      |                                 |         |         |         |         |
| Aircraft regulation          | (6)                             |         |         |         |         |
| Rules for application        |                                 |         |         |         |         |
| Regulate storage facilities  |                                 | (7)     |         |         |         |
| Regulate waste disposal      |                                 |         |         |         |         |
| Investigate drift complaints |                                 |         |         |         |         |
| Impose penalties             |                                 |         |         |         |         |

(1) Regulatory activity applies to applicators and pilots who apply non-hormone herbicides only.

(2) Regulatory activity applies to applicators and pilots who apply hormone herbicides only.

(3) Grants waste water permits to ground facilities where chemicals are mixed or disposed.

(4) FAA regulations do not use the term "applicator." They use the terms "private operator" and "commercial operator." A private operator is a pilot who applies chemicals from his own aircraft. A commercial operator is one who hires at least one pilot to apply chemicals.

(5) EPA has chosen to delegate these responsibilities to state agencies.

(6) By rule of AAB.

(7) BPI also has authority over the storage of all pesticides and herbicides.

SOURCE: PEER analysis of MISS. CODE ANN. § 69-21-101 et seq., 69-21-1 et seq., 69-23-1 et seq., 49-17-1 et seq., and 14 CFR 137.1 et seq.

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## Could the Agricultural Aviation Board's statutory responsibilities be performed more efficiently and effectively by consolidating them with those of another agency?

Yes, the duties and responsibilities of the Agricultural Aviation Board could be carried out by the Bureau of Plant Industry, which would eliminate the duplication between the two agencies and place responsibility in an agency with a more structured approach to regulation.

When PEER asked whether the Bureau of Plant Industry could assume the duties of the Agricultural Aviation Board, the Bureau of Plant Industry's Director stated that the duties currently being performed by the board could be delegated to his bureau if the fee system remained in place and he was given one additional employee.

Currently, 74 of the 124 applicators and 130 of the 297 pilots licensed through the Agricultural Aviation Board are also licensed by the Bureau of Plant Industry for aerial applications of hormone-type herbicides. From October 1, 1999, through September 30, 2000, the Bureau of Plant Industry conducted 35 agricultural use inspections, 155 agricultural complaint-related inspections, and 154 applicator records inspections. Currently, sixteen Bureau of Plant Industry inspectors work in sixteen districts throughout the state and are responsible for inspecting commercial applicator operations and enforcing state and federal pesticide laws.

Through its cooperative agreement with EPA, the Bureau of Plant Industry conducts agricultural use and records inspections of applicator operations. If violations are found, the inspectors are required to collect documentation for disciplinary action by the Bureau of Plant Industry. As discussed earlier, Bureau of Plant Industry inspectors must also conduct investigations related to aerial agricultural applicator drift complaints.

When PEER asked whether the Bureau of Plant Industry could assume the duties of the Agricultural Aviation Board, the Bureau of Plant Industry's Director stated that the duties currently being performed by the Agricultural Aviation Board could be delegated to his bureau if the fee system remained in place and he was given one additional employee. The Bureau of Plant Industry's Director noted that every state in EPA's Region IV area, with the exception of Mississippi, has agricultural aviation responsibilities under its Department of Agriculture.

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## Recommendations

1. To improve efficiency and effectiveness in the regulation of agricultural aviation, reduce confusion, and improve accountability, the Legislature should consider transferring the duties and responsibilities of the Agricultural Aviation Board back to the Department of Agriculture and Commerce.
2. Whichever agency is responsible for regulating the state's agricultural aviation industry should implement the following:

### *Testing*

- Revise agricultural aviation written examinations to comply with professional testing standards, such as those promulgated by the Council on Licensure, Enforcement and Regulation (CLEAR).
- To avoid duplicating the flight performance exams given by the FAA, eliminate state flight performance exams of pilots.

### *Inspection*

- Establish formal policies and procedures governing inspections, such as the required frequency of inspections and the type of documentation required to show that inspections are being conducted in an appropriate manner.

### *Complaint Process*

- Improve the public's access to the complaint process by establishing formal procedures to ensure that the public is aware of the complaint resolution process. The board should maintain a listing in local telephone directories and make information available to the public which describes the complaint process (e.g., a telephone number where persons can call to report a complaint, where to file complaints, what information is needed to respond to a complaint, and complainants' rights). With complaints outside the Agricultural Aviation Board's jurisdiction, the board should refer the public to the proper entity for action (e.g., agricultural aircraft accidents should be reported to FAA, wastewater disposal



violations by applicators should be reported to the Department of Environmental Quality).

***Enforcement Actions***

- The Agricultural Aviation Board should develop formal, written standard operating procedures in the enforcement case process, including case review, evidence assessment, and penalty calculation. The board should also develop a penalty policy provision that allows for escalation of penalties for recurring violators.

**Appendix A : Agricultural Aviation Board's Gravity Matrix for Penalty Decisions**

**GRAVITY MATRIX**

| Case No                           | Date         | Bd. Mbr. Initial   | Bd. Mbr. Total Penalty |                     |
|-----------------------------------|--------------|--|------------------------|---------------------|
| <b>VIOLATION</b>                  | <b>VALUE</b> | <b>CIRCUMSTANCES</b>   |                        | <b>BOARD RATING</b> |
| HUMAN HARM                        | 0-4          | <ul style="list-style-type: none"> <li>❖ Actual</li> <li>❖ Potential</li> <li>❖ Toxicity of Chemical</li> </ul>  |                        |                     |
| ENVIRONMENTAL HARM                | 0-4          | <ul style="list-style-type: none"> <li>❖ Actual</li> <li>❖ Potential</li> <li>❖ Toxicity of Chemical</li> </ul>  |                        |                     |
| CARELESS OR NEGLIGENT APPLICATION | 0-4          | <ul style="list-style-type: none"> <li>❖ Wind Direction</li> <li>❖ Wind Speed</li> <li>❖ Distance from Treated Area</li> <li>❖ Toxicity of Chemical</li> </ul>   |                        |                     |
| COMPLIANCE RECORD                 | 0-4          | <ul style="list-style-type: none"> <li>❖ No Prior Violations</li> <li>❖ One or More Similar Violation in Previous 24 Months</li> <li>❖ One or More Similar Violation in Previous 12 Months</li> </ul>  |                        |                     |
| CULPABILITY                       | 0-4          | <ul style="list-style-type: none"> <li>❖ Violation Resulted from Negligence</li> <li>❖ Warned Previously for Same Offense</li> <li>❖ Knowing or Willful Violation</li> </ul>   |                        |                     |
|                                   |              | <b>TOTAL VALUE</b>   |                        |                     |
|                                   | <b>VALUE</b> | <b>ENFORCEMENT REMEDY</b>  |                        | <b>BOARD RATING</b> |
|                                   | 0-4          | Notice of Warning - \$1,500  |                        |                     |
|                                   | 5-8          | \$1,500 - \$2,500  |                        |                     |
|                                   | 9-12         | \$2,500 - \$ 3,500   |                        |                     |
|                                   | 13-16        | \$3,500 - \$4,500 and/or Modify or Suspend License for 1 Year  |                        |                     |
|                                   | 17-20        | A. \$4,500 - \$5,500 and<br>A Mandatory License Modification for 1 Year<br><br>B. \$5,500 - \$25,000 and/or<br>1. Modify or Suspend License for 1 year<br>2. Revocation<br><br>C. \$25,000 or<br>1. Mandatory Suspension 1 Year<br>2. Revocation |                        |                     |
|                                   |              | <b>TOTAL ENFORCEMENT REMEDY</b>  |                        |                     |

BOARD MEMBER - DO NOT WRITE IN THE SPACE BELOW  
 AVERAGE PENALTY \_\_\_\_\_

**Appendix B: Agricultural Aviation Board Drift Complaint Case Decisions**

| <u>Cases</u> | <u>Case Description</u>  | <u>Agricultural Aviation Board Decision</u> |
|--------------|--|---|
| 0001         | Complaint involves the physical drift of Dropp pesticide on rice of complainant. Bureau of Plant Industry found that the application was a label violation because because the Dropp label specifically states to avoid contact with crops other than mature cotton or cotton that is to be defoliated, as this product may injure or defoliate other crops.         | \$1,060.00                                  |
| 0002         | Complaint involves the drift of pesticide on two linemen who were repairing an electrical line which was taken down by an airplane belonging to the applicator. The pesticides being applied were DEF 6 and Finish. The Bureau of Plant Industry found that the statements of both linemen support the complaint.  | \$1,740.00                                  |
| 0003         | Complaint involves the physical drift of Starfire pesticide on property belonging to complainant. Bureau of Plant Industry found that winds were blowing toward the affected area. The application was a label violation because the Starfire label specifically states to avoid applications of the material when weather conditions favor drift from treated area. | \$1,200.00                                  |
| 0004         | Complaint involves the physical drift of Def and Dropp pesticide on property belonging to complainant. Bureau of Plant Industry found that the winds were blowing toward the affected area.  | Case Dismissed                              |
| 0005         | Complaint involves the physical drift of Grandstand and Stam pesticide on  | Case Dismissed                              |

|       |   |  |
|-------|---|--|
|       | property belonging to complainant. Bureau of Plant Industry found that the pesticides were allowed to drift onto cotton belonging to complainant.   |  |
| 0006  | Complaint involves the physical drift of Gramoxone Extra pesticide on property belonging to complainants. Bureau of Plant Industry found the application of Gramoxone Extra drifted into the yards and gardens of complainants.   | \$875.00   |
| 0007  | Complaint involves the physical drift of DEF on property belonging to complainant. Bureau of Plant Industry found that the application of DEF drifted onto property of complainant.   | Applicator reached settlement with complainant.  |
| 0008  | Complaint involves the physical drift of Roundup Ultra, Barage HF and Amine 4 pesticide on pasture belonging to complainant. Bureau of Plant Industry found that the application of Roundup drifted onto the property of complainant. The Roundup application was a label violation because the label specifically states to avoid drift, drift mist, or splash onto desirable vegetation.            | \$900.00   |
| 0009  | Complaint involves the emptying of Roundup and 24D pesticide on property belonging to complainant. Bureau of Plant Industry found that the pesticides appeared in the complainant's wheat field as a result of a leaking hose on the applicator's airplane. Although the case was not a physical drift case, Bureau of Plant Industry asked the board to consider the case as an equipment violation. | Case was forwarded to Bureau of Plant Industry and placed on hold until EPA resolves state primacy issue |
| 00010 | Complaint involves the flight of airplane across a country road while making an application. The airplane was   | Board sent a notice of warning to applicator   |

|       |  |            |
|-------|--|------------|
|       | applying Roundup Ultra and Saber pesticides. Bureau of Plant Industry found that the case did not involve physical drift but recommended that it could be considered as a misuse violation of both product labels.   |            |
| 00011 | Complaint involves the physical drift of Defol 5 pesticide on property belonging to complainant. Bureau of Plant Industry found that the pesticides appeared in the complainant's farmland. Bureau of Plant Industry found that the case involved physical drift and recommended that it could be considered as a misuse violation of the product label. | \$1,475.00 |
| 00012 | Complaint involves the physical drift of Gramoxone Extra pesticide on property belonging to complainant. Bureau of Plant Industry found the case involved physical drift and recommended that it could be considered as a misuse violation of the product.   | \$675.50   |

SOURCE: Agricultural Aviation Board.

*AGRICULTURAL AVIATION BOARD OF MISSISSIPPI*

MEMBERS OF THE BOARD

Bern Prewitt  
Rudy Holcomb  
Jerry Webb  
Charlie Christmas



STAFF

Executive Secretary  
Executive Assistant  
Mickey Sims  
Secretary  
Teresa "Lesa" Oswalt

April 25, 2001

*208 N Dunn St.  
Eupora, MS 39744  
Telephone (662) 258-3474  
Fax (662) 258-5262*

Dr. Max Arinder, Director  
Joint Legislative Committee on Performance  
Evaluation and Expenditure Review  
P. O. Box 1204  
Jackson, MS 39215-1204

Dear Dr. Arinder:

The Agricultural Aviation Board (AAB), which was created by state law in 1966 and has been in existence since that time, is a special fund agency and therefore receives no general fund monies. We are a self-supporting agency with monies generated by licensing fees of agricultural aircraft and pilots.

The Agricultural Aviation Board would like to respond to the PEER Review with the following:

→ Testing:

The Board had no knowledge that the Council on Licensure, Enforcement and Regulations (CLEAR) for Development, Administration and Scoring of Examinations existed at the time our exam was upgraded and rewritten. After reviewing the 41-page document provided to us by CLEAR guidelines, it is our opinion that those portions in the document that pertain to the Agricultural Aviation Board have been met.

Additionally, the AAB exam is recognized by 12 other states with which we have reciprocal agreements.

→ Inspections:

The field investigator does document the number of inspections conducted; these are recorded on weekly itinerary reports and are totaled and compiled quarterly to the Mississippi Management and Reporting System and for the AAB annual report.

→ Complaint Process:

With the limited resources available to the AAB, it is neither possible nor feasible to have phone numbers listed in every local phone directory. We do, in fact, have open communications with local county extension personnel, the Federal Aviation Administration (FAA), Department of Agriculture and Commerce, Bureau of Plant Industry, Sheriff's Departments, Boll Weevil Eradication personnel, etc.

Complaints outside the Board's jurisdiction are referred to the proper agency.

Dr. Max Arinder  
April 25, 2001  
Page 2

→ Enforcement:

Subsequent to the PEER Evaluation Staff's preliminary investigation, the AAB has adopted a revised penalty matrix, which allows for license modification of repeat offenders.

An opinion from the Attorney General's office allowed members of the board to hear complaint cases involving employees of their own company.

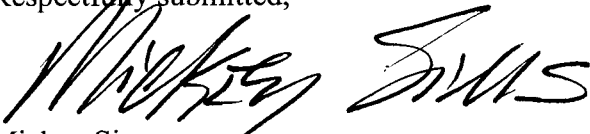
Subsequent to the PEER Staff's preliminary investigation, the AAB has in place written justification of penalty assessments.

→ Summary:

The AAB is striving to more effectively regulate the agricultural aviation industry in the state. A Steering Committee has been formed, comprised of members from Delta Council, Farm Bureau, Department of Agriculture and Commerce, Delta Research and Extension Center, MSU Extension Service, US Department of Agriculture, farmers and ag aviation industry. Also, in the 2002 session, legislation will be introduced to add 2 members to the Board (1 from Farm Bureau and 1 from Delta Council). The Advisory Committee for the AAB which includes representatives from FAA, Department of Environmental Quality, Delta Council, Farm Bureau, Delta Research and Extension Center, US Fish and Wildlife, MSU Extension Service, State Department of Health and MS Department of Transportation-Aeronautics Division, is a working committee and are invited to and participate in all board meetings.

This response is from the Agricultural Aviation Board and delivered by the Executive Secretary. If you have any further questions or need any other information, please feel free to contact us.

Respectfully submitted,



Mickey Sims  
Executive Secretary

/to

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## PEER Committee Staff

Max Arinder, Executive Director  
James Barber, Deputy Director  
Ted Booth, General Counsel

### Evaluation

Sam Dawkins, Division Manager  
Linda Triplett, Division Manager  
Oona Carr  
Pamela O. Carter  
Kim Cummins  
Kimberly Haacke  
Barbara Hamilton  
Karen Kerr  
Joyce McCants  
Charles H. Moore  
David Pray  
Lee Anne Robinson  
Katherine Stark  
Lynn Watkins  
Tanya Webber  
Larry Whiting  
Julie Winkeljohn

### Editing and Records

Ava Welborn, Editor and Records Coordinator  
Tracy Bobo  
Sandra Haller

### Administration

Mary McNeill, Accounting and Office Manager  
Pat Luckett  
Jean Spell  
Gale Taylor

### Data Processing

Larry Landrum, Systems Analyst

### Corrections Audit

Louwill Davis, Corrections Auditor