



STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL**  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

Office of the  
Secretary

Phone: (302) 739-9000  
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**Secretary's Order No. 2009-A-0016**

**Re: Application of Indian River Power, LLC to Renew an Air Pollution Control Permit Pursuant to Regulation 1130's Title V State Operating Permit Program**

**Date of Issuance: September 8, 2009**

**Effective Date: September 8, 2009**

Under the authority granted the Secretary of the Department of Natural Resources and Environmental Control (Department") under *7 Del C. §6003*, the following findings, reasons and conclusions are entered as an Order of the Secretary.

**Background**

This Order considers Indian River Power LLC's (Applicant) application to renew its Title V State Operating air pollution control permit under the Department's *Regulations Governing the Control of Air Pollution, 7 DE Admin C. §1130* (Regulations). The permit is authorized by Title V of the 1990 amendments to the federal Clean Air Act (CAA), which established a federal permit program for large sources of air emissions of pollutants. The permit governs all the air emissions from nineteen separate sources at the Applicant's Indian River Generating Station (Facility) located in Millsboro, Sussex County.

On July 15, 2008, the Department's held a public hearing before the Department's presiding Hearing Officer, Robert P. Haynes, who thereafter requested technical assistance from the Department's experts within the Division of Air and Waste

Management's Air Quality Management Section. In a technical response memorandum (TRM) dated November 19, 2008, AQMS provided the hearing officer with a technical response memorandum provided a comprehensive review and response to the technical issues raised by the public comments and explained the changes to the proposed permit in response based upon to information from the public hearing and the experts' independent determination that revisions were warranted. Mr. Haynes, in a Hearing Officer's Report dated September 4, 2009 (Report), incorporates the AQMS technical response memorandum, reviews the public comments and recommends that the record as developed supports a final decision to adopt the proposed permit, as prepared by AQMS in the November 19, 2008 technical response memorandum.

### **Findings and Discussion**

I find that the Report's recommendations to adopt the proposed permit, as prepared by AQMS in response to issues raised by the public comments, is well-supported in the record. I adopt the Report and the technical response memorandum and the reasoning set forth in these documents, which I include in the record to support this decision. I find that the renewal of the Facility's Title V Operating permit will allow the Department to exercise more regulatory authority over the Facility's air emissions than possible if the permit was not issued. The permit approved by this Order will include reasonable terms and conditions to allow the Department to effectively regulate the air emissions and seek enforcement of any permit violations under the federal CAA.

The Title V permit reflects some of the changes made as a result of public comments and also further refinement and changes made since the draft permit was prepared. I find that the record developed by the Department's experts supports this the

changes to the proposed permit. The Title V permit will improve the Department's ability to regulate the Facility under the permits many terms and conditions. The terms and conditions include those that are in the Consent Order, which will soon result in significant reduction to the Facility's air emissions of the pollutants, nitrogen oxide, mercury and sulfur dioxide, as result of the shutdown of the two oldest coal-fired boilers used to generate electricity. This will provide significant environmental and public health benefits to Delaware.

The Department shares many of the concerns raised by the public comments on the Facility's impact on the environment and public health. Nevertheless, I find that the Facility should operate under a renewed Title V permit and continue to generate electricity needed by the residents of southern Delaware. The Title V permit, as prepared by the Department's experts in AQMS, includes reasonable conditions, which will allow the Department to take the necessary regulatory and enforcement actions should the Facility not meet the standards and limits set forth in the Title V permit.

In sum, as more fully described in the reasons and findings above and in the Report, I adopt and direct the following as a final order of the Department:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
3. The Department held a public hearing in a manner required by the law and regulations;

4. The Department considered all timely and relevant public comments in making its determination;

5. The Department shall submit to EPA a proposed permit, subject to reasonable conditions determined by DAWM and pursuant to the Regulations, to allow EPA to conduct its review and obtain EPA approval so that the Department may issue a final permit to the Applicant;

6. The Department shall issue a permit to Applicant as soon as possible once the EPA has reviewed and approved such action and in a manner consistent with EPA's approval; and that

7. The Department shall provide notice of this action by mail or email to each person who requested to receive such notice, as shown on the public hearing sign in sheet or in written correspondence to the Department.

*s/Collin P. O'Mara*  
Collin P. O'Mara  
Secretary

## HEARING OFFICER'S REPORT

TO: The Honorable Collin O'Mara  
Secretary, Department of Natural Resources and Environmental Control

FROM: Robert P. Haynes, Esquire  
Senior Hearing Officer, Office of the Secretary  
Department of Natural Resources and Environmental Control

RE: Application of Indian River Power, LLC to Renew its Title V Operating Air Pollution Control Permit for the Indian River Generating Station in Millsboro, Sussex County

DATE: September 4, 2009

### I. PROCEDURAL HISTORY

This Report makes recommendations to the Secretary of the Department of Natural Resources and Environmental Control (Department) on the April 18, 2007 permit application submitted by Indian River Power, LLC<sup>1</sup> (Applicant) to the Department's Air Quality Management Section (AQMS) within the Division of Air and Waste Management (DAWM). The Applicant seeks to renew an air pollution control permit<sup>2</sup> for its Indian River Generating Station, located at 29416 Power Plant Road, Millsboro, Sussex County (Facility).

In a May 10, 2007 letter, the Department notified the Applicant that the application was sufficiently complete to allow AQMS to begin to prepare a draft permit, as required by the Department's federally approved permit procedures for Title V permits. AQMS required additional information, and the Applicant responded to the Department's last request for information in a response dated December 14, 2007. On February 29, 2008, the Department issued the draft permit for public notice and public comment. The Department's notice was to allow the public the opportunity to provide the Department with comments on the draft permit.

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<sup>1</sup> Applicant is a subsidiary of NRG Energy, Inc.

<sup>2</sup> The permit is a state Title V operating permit ("Title V permit") authorized pursuant to Title V of the 1990 amendments to the federal *Clean Air Act*, U.S.C. §§501-507, ("CAA"), 7 Del C. Subchapter VIII and *Section 7.0 of Regulation 1130* (formerly *Regulation 30* before its codification in the Department's *Regulations Governing the Control of Air Pollution "Regulations"*).

AQMS also prepared an extensive Technical Memorandum, which reviewed the draft permit's terms and conditions and explained in detail the technical support for the draft permit's important conditions and terms.

The Technical Memorandum set forth the regulatory changes that occurred since the Department issued the Facility its original Title V permit. These changes included three Department permits for the Facility's construction and operation of air pollution control equipment. In addition, the Technical Memorandum addressed the significant regulatory impact of *Regulation 1146*, and the subsequent resolution of the Applicant's appeal of *Regulation 1146* by a court approved Consent Order, which the Applicant agreed to allow to be reflected in the federally enforceable Title V permit.

The Applicant requested four changes to be made to the current Title V permit. The Department's experts responded to each request in the Technical Memorandum. The Technical Memorandum also identified the changes proposed in the draft permit from the current permit and cited the applicable federal and state regulatory authority that supported each change. The Technical Memorandum also explained that the model permit format was being revised to improve the understanding of the draft permit's conditions and terms.

In response to the public notice, the Department received comments from EPA dated March 26, 2008. In addition, the Department received a comment from John Austin dated March 26, 2008. Mid-Atlantic Environmental Law Clinic ("MAELC") on behalf of its client, Citizens for Clean Power ("CCP"), submitted comments and requested a public hearing.

The Department determined that the public interest warranted holding a public hearing, which was held on July 15, 2008 at the Millsboro Fire Hall, Millsboro, Sussex County. At the public hearing, I granted an unopposed request to submit written public comments until July 29,

2008. MAELC//CCP submitted additional comments. The Applicant had the opportunity<sup>3</sup> to submit a reply to the public comments within fifteen days after the close of the public comment period, but the Applicant did not submit any reply comments.

In response to the public comments and to assist me in the preparation of this Report of recommendations, AQMS prepared a Response Document dated November 19, 2008. The Response Document lists the public hearing's exhibits, lists and summarizes the public comments and provides AQMS's technical expert reply thereto. I adopt the technical response document, which is attached hereto as Appendix A. In addition, AQMS prepared a proposed permit, transmitted to me with the November 19, 2008 TRM, which reflects several changes that to the proposed permit and AQMS explains why the changes are appropriate to be made if the final permit is issued.

The Title V permit regulates the Facility's air emissions based upon designated 'air emission units. The Facility's four coal-fired boilers are Units 1, 2, 3, and 4 and have design megawatt capacity ratings of 91, 91, 165 and 420, respectively. The Title V permit also regulates the following air emissions units: Unit 5, a No. 2 fuel oil-fired combustion gas turbine; Unit 6, a No. 2 oil fired heater; Unit 7, an ash handling/fly ash silo; Units 8 and 9, vacuum fly ash transfer with filter receivers for emissions from boilers 1, 2 and 3; Unit 10, a lime silo and baghouse; Unit 11, a 10,000 gallon No. 2 fuel oil tank; Units 12 and 13, two 250,000 gallon No. 2 fuel oil storage tanks; Units 14 and 15, two gasoline storage and dispensing stations; Unit 16, the twenty acre coal pile; Unit 17, the coal handling equipment for transporting the coal from the coal pile to the boilers; Unit 18, the coal ash landfill; and Unit 19, the cold solvent cleaner. The Facility's current Title V permit, Permit AQM-005/00001, was issued July 16, 2004, and remains in effect pending either its replacement by a renewal permit or some other Department

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<sup>3</sup> See Subsection 7.10.6 of the Regulation 1130.

action. The Department's other state air pollution control operating permits are listed in Condition 1.b. of the draft permit.

The Facility is operating under a Consent Order, which includes an important term that will significantly change the Facility's operations during the proposed term of the draft permit. Applicant agreed to reflect the Consent Order in the Title V permit, which allows the Title V permit to include the shutdown<sup>4</sup> of the Facility's two oldest generating units, Units 1 and 2, in 2011 and 2010, respectively. This change will significantly reduce harmful air emissions of pollutants from the Facility.

### **III. SUMMARY OF THE RECOMMENDED RECORD**

The Department's public hearing record contains a one hundred and twenty-six page verbatim transcript of the public hearing, the documents introduced in the record at the public hearing as exhibits, and the documents introduced by the Secretary to support the Department's final decision.<sup>5</sup> These documents include the legal notices, the application, the draft permit, the Technical Document that supports the draft permit, and the written public comments received prior to the hearing. AQMS's technical experts, Paul Foster, P.E., Program Manager, Engineering and Compliance Branch, Joanna French, P.E., and Tom Lilly, P.E., were present and provided responses at the public hearing to most of the public's questions.

Public comments were made by fourteen members of the public. At my request, AQMS provided a detailed response to each public comment and response to issues raised, which is attached hereto and incorporated herein. The AQMS response memorandum provides a

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<sup>4</sup> The shutdown allows the units to remain in place and available for future use, but their operation would be subject to environmental controls that would make their future operation likely only with the installation of new pollution control equipment.

<sup>5</sup> The Department develops a record at the public hearing in order to assist the public in making public comments. The Department does not have any burden of proof at a public hearing, which instead is held solely to hear from the public on the draft permit and application that were the subject of the public notice.

thorough review of and complete response to all the public comments. It also supplements the oral responses AQMS's experts made at the public hearing.

Some public comments were not relevant to the pending permit application and some raised important issues. The public comments generally were well-researched and expressed the commenters' environmental concerns with the amount of air emissions from the Facility and such emissions adverse impact on the environment and public health. The public comments I select for more discussion are: 1) whether the Title V permit should be denied and the Facility closed to prevent any air emissions that may cause adverse impacts to the public health of local residents; 2) whether the Department should require more frequent stack testing for emissions of particulate matter ("PM") than the draft permit's frequency of once during the five year term of the permit; 3) whether the Department should add more air quality monitoring stations at locations closer to the Facility; 4) whether permit conditions should be based upon public health risk information; 5) whether the permit's format can be improved to allow the public better understanding of its terms and conditions; 6) whether the Department needs to determine an appropriate maximum achievable control technology ("MACT") for the Facility in this permit based upon a recent federal court decision; 7) whether the proposed duration of the draft permit of five years should be reduced to allow more frequent regulatory oversight and public reviews; and 8) whether the draft permit's regulation of air borne fugitive dust from the coal ash landfill and coal storage areas will be effective.

There were public comments on the Facility's coal ash landfill and from the Facility's surface water intake and discharge. I find as a preliminary matter that these comments are not relevant to the Facility's air emissions. Consequently, I do not discuss these comments because a Title V permit only regulates air emissions. The Department's other permits comprehensively regulate these environmental impacts from these regulated areas of the Facility's operation,

namely, the solid waste is regulated by permits issued by the Solid and Hazardous Waste Management Program in DAWM and the surface water quality is regulated by permits issued by the Surface Water Discharge Section in the Department's Division of Water Resources.

#### **IV. RECOMMENDED FINDINGS AND REASONS**

I find that the permit proposed by AQMS in response to the public comments and AQMS' independent expertise is consistent with the Regulations and will allow the Department to effectively regulate the Facility's air emissions to protect the environment and public health. I find that the permit proposed by AQMS in response to the public comments and AQMS' independent expertise is consistent with the Regulations and will allow the Department to effectively regulate the Facility's air emissions to protect the environment and public health. I also find that the record supports an Order adopting the proposed permit that AQMS prepared, which is based upon facts in the record, and the Department's expertise in drafting reasonable conditions to protect the environment and public health from any undue risk of harm. I find that the proposed permit is factually accurate and conclude that it is legally consistent with the CAA and the Department's *Regulations*. Consequently, I recommend that the proposed permit and its reasonable terms and conditions be adopted by the Secretary in a final order, which will be submitted to EPA for its further review and approval consistent with CAA procedures.

I recommend rejection of the public comments that do not apply to air emissions or otherwise are inconsistent with the recommendations in this Report. I find that the Department's experts have developed a record to support the proposed permit, as attached hereto in Appendix B. The renewal of the Title V permit with the reasonable terms and conditions in the proposed permit reflects some of the concerns raised in the public comments, such as on stack testing. The terms and conditions will protect the environment and public health, which is the intended purpose of the Title V permit program. Thus, the Department can best regulate the Facility by a

Title V permit issued consistent with the Department's statutory purposes to protect the environment and public health.

As noted above, the application and AQMS' draft permit are subject to the Department's federally mandated CAA procedures in the *Regulations*. Subsection 7.10 of *Regulation 1130* sets forth the public participation process, and I find that the Department followed procedures for public participation consistent with the law and *Regulations*. I recommend approval with reasonable conditions recommended by the experts in AQMS, as set forth in the proposed permit prepared following the public hearing that reflects some changes, including those requested in some of the public comments.

My finding and recommendation is that the Department's record supports issuing the Applicant the Title V permit for the Facility. This action is consistent with the Department's purpose to protect the environment. The Department's experts in AQMS provide a well-supported record for approving the proposed permit to be sent to EPA for its review and approval. The renewal of this Title V operating permit will reflect the important regulatory changes that have occurred since the original permit was issued. A renewal will allow the Department greater authority over the Facility than possible acting solely under its state authority since the Title V permit will be federally enforceable. Thus, the Title V operating permit will improve the Department's ability to enforce its *Regulations* and the Title V permit conditions through a federally enforceable permit, which was the intent of Congress when it enacted the Title V permit program for use by the states.

I recognize that my recommendation is contrary to certain public comments, which would prefer that the Department not issue an operating permit. The denial of the operating permit may be viewed as a way towards ordering the closure of the Facility, but I do not consider that a Title V operating permit renewal application as the proper way to achieve closure of the

Facility. I find such comments misguided, although well-meaning, in their interest to protect the environment from any harmful emissions.

While it is true that the Facility is a major source of harmful air emissions, that alone does not provide any reason to close the Facility. There are many things we use and enjoy every day that produce harmful air emissions of pollutants, such as motor vehicles, motor boats and electricity from the Facility. I agree with public comments that the Facility is the largest stationary source of air emissions in Delaware. Nevertheless, the air emissions are allowed based upon the laws, the *Regulations* and the Department's air pollution control permits. The Title V operating permit is issued to reflect the existing permits and existing regulatory controls over the Facility's air emissions. Moreover, it will reflect significant changed conditions in the permits and regulatory environment since the last Title V permit was issued, particularly with *Regulation 1146*. The Title V permit program was intended to allow comprehensive federal permit authority over the Facility to compliment the state's enforcement ability when such state permit authority is exercised consistent with the federal requirements, such as in a Title V permit.

The Department always has the authority to revoke a permit when there is sufficient basis to take such action. Indeed, the Department's draft permit refers to this authority in Condition 1.1.1.i, which states that the Department may modify, revoke, reopen, reissue, or terminate the permit for cause. Despite the public comments to the contrary, I find that there is no lawful cause to deny a Title V permit. Indeed, there are many reasons why such a permit is consistent with protecting the environment and public health, as discussed above. I will not speculate on what cause would result in the Department directing closure of the Facility pursuant to Condition 1.1.1.i, but that is left to the Department's discretion for another record. I find that nothing in this record supports such a drastic action.

The Facility is operating substantially in compliance with the Department's *Regulations*. The *Regulations* are designed to protect the environment and public health and the Department would first show in an enforcement action the cause necessary to shutdown the Facility and provide the Facility an opportunity to defend itself in a public hearing. Thus, I recommend rejection of those public comments that seek from the Department an order denying the permit as a way to close the Facility.

The primary reason for any Title V operating permit is to improve the authority of the issuing agency to regulate air emissions of pollutants. The regulation of the Facility's air emissions of pollutants by a single federally enforceable permit provides the Department with greater authority to regulate and enforce the environmental laws and *Regulations*. Otherwise, the Department could only act under its state authority to control air pollution and take enforcement action. The draft permit reflects changes that have occurred to the Facility and the Department's regulation of the Facility. The public comments fail to recognize that a new Title V permit is more stringent and specific than the existing permit. It will allow the Department to reflect the important regulatory changes and operational changes that have occurred at the Facility. The changes include the impact of *Regulation 1146* and the installation of pollution control equipment to reduce mercury emissions. The renewal of the Title V operating permit will allow the Department to reflect these changes in a federally enforceable permit.

The Department's experts also carefully reviewed the public comments and found that certain minor changes were appropriate to be made in response. Accordingly, AQMS submitted the suggested changes in Attachment 3 to the Response Document and based upon my review I find that they are reasonable and well-supported. For example, the stack testing requirement will be required once during the five year term of the permit, or every two years if the prior stack test was greater than 50% of the particulate matter standard in order to have a performance based

trigger for more frequent stack testing. I agree that this change represents a reasonable method to require more frequent stack testing when appropriate due to the Facility's operating close to certain standards.

The second change to the draft permit is to revise the wording to reflect the Consent Order that requires the Applicant to shutdown Unit 1 in 2011 and Unit 2 in 2010. The revision to remove the emission limits for these units after their shutdown is consistent with the Department's position that there will be no emissions from these units after their shutdown.

There were changes to correct the applicable pollutant to be regulated as nitrogen oxide and not sulfur dioxide and other minor corrections appropriate to clarify and correct the permit's terms and conditions. Another change is to include the specific manufacturer's operating limits in the permit, as opposed to indicating that the Applicant should meet the manufacturer's limits.

The Department's experts also suggest clarifying that the permit reflects the regulation of coal dust from the coal delivery and conveying operations and not from the coal pile. This change is consistent with the Facility's operations and does not require the covering of the twenty acre coal storage area to control fugitive dust from wind erosion from this emission unit. I agree that the clarification is appropriate and consistent with the intent to impose the .35 tons per twelve month rolling average standard on the handling operations and not the coal storage operation.

The Department's experts recommend that the volatile organic compound disposal provision be eliminated in order to reflect the current permit's language and not add monitoring and record keeping requirements that the Department's experts, upon further consideration, have determined are not needed.

The Department's experts also recommend that the permit reflect the Consent Order's compliance schedule and limits. The Department negotiated the Consent Order in order to

achieve compliance with certain regulatory standards and the renewal permit should reflect the schedule and limits in the Consent Order. The renewal permit will be a federally enforceable permit and provide an independent basis for action to obtain compliance with the Consent Order should such compliance action be needed in the future. Consequently, the revision is reasonable and consistent with reflecting the Consent Order in the Title V operating permit as part of the Facility's compliance schedule.

The comments on the frequency of stack testing seek to impose a more frequent stack testing than once during each term of the permit. EPA also raised questions concerning the stack testing. The Department's experts replied that stack testing was last done in August 2007 and that the test results showed no problems. Nevertheless, AQMS's experts recommend a change to a performance based trigger that would trigger more frequent stack testing than once during the term of a permit, which is five years. The duration of stack testing is a matter of the exercise of informed judgment based upon specific circumstances and the proposed change would reflect the specific circumstances to warrant such a test.

While the Department could order Applicant to undertake more frequent testing, I find that the Department's experts have carefully considered the operational burden associated with additional stack testing with the possible benefits. I defer to their expert opinion, which should be given great weight. The public comments considered that the last stack test was performed in 2002, but this was not correct. Instead, the last stack test occurred in 2007. I agree that the stack test is appropriate and useful particularly when reviewing the Facility's renewal application. The proposed permit may have more frequent testing when warranted by the Facility's performance indicia in a stack test. I agree that five years is not too long a time for stack testing at the Facility absent conditions that warrant such testing. Any additional testing could be an inefficient use of resources. The Department's experts have balanced the competing interests and determined the

five year frequency is appropriate with a performance based trigger, which would prompt testing every two years. This is a reasonable requirement to reflect in the draft permit and I recommend its adoption.

The issue of increasing the air quality monitoring stations was raised based upon the current Department station in Seaford, Sussex County. The Response Document indicates that the issue should be raised to the Secretary, but the Department has installed additional mobile air monitoring equipment near the Facility to supplement the data from the Seaford site. The matter of the number and location of air monitoring stations is one where the Department may prefer more in an ideal world where there are unlimited budgets for such expenditures. The Department has relied upon the Seaford location for its Sussex County tests of air monitoring and it is located approximately 30 miles from the Facility. This location was approved as suitably representative of air quality in Sussex County by EPA. I agree that this decision should be made in the context of a Department budget and absent any proof that the Seaford site is not representative of Sussex County. I reject the public comments that seek to direct the establishment of another or replacement station at or near the Facility.

The public comment on reflecting public health risks was the subject of the Response Document that indicated that the Department includes public health risks in developing the underlying regulations used as the basis for the draft permit. I agree that the Regulations are the best method to reflect the public health risks so that when permits are issued consistent with the Regulations they reflect the public health risks in the permit's limits to protect the public from any undue risk of harm from the emissions. *Regulation 1146* was based upon considerable public health risk associated with air pollution. The Department in a permit proceeding applies its Regulations to the permit application as the most appropriate way to impose new regulatory requirements on a permittee. The Department provides the opportunity for public comment on

all its proposed regulations before any final decision is made and often reflects public health risks in the final decision, including the information from the public. Indeed, Regulation 1146 was supported by many who attended the public hearing on the Facility's draft permit because they supported the Department's effort to improve air quality and public health by reducing harmful air emissions from larger electric generating stations such as the Facility. The Department, however, does not amend or revise a regulation in a permit decision, which is what some of the public comments apparently seek. I do not recommend any amendment in this Title V renewal permit and recommend that the Department follow its Regulations and amend its Regulations when appropriate and to follow the regulatory development process to provide adequate public notice to all concerned.

The public comments sought changes to the permit format and the AQMS recently made certain format changes to improve the readability of the permit. Paul Foster, who is responsible for all the permits issued by AQMS, indicated a willingness to make further adjustments and indicated that the Department's permit provides all the information together in a table format, as opposed to making a person look at several different pages in the permit. I agree that informal resolution of the permit's format issue would be ideal. The Department encourages such informal dialogue when appropriate so that the public may better understand the concerns with the permit's format. I, however, do not recommend any changes in this Title V permit until there has been sufficient informal discussions or even a formal discussion with public notice and comment if the Department determines such a process is warranted. The bottom line for the proposed permit is that the necessary information needed for a Title V operating permit is included and I recommend its adoption in the current format.

The public comments raised the issue of whether the Facility should be subject to the more stringent regulatory standards and that the Department should define the MACT to control

air emissions. This issue was the subject of a recent court decision that vacated EPA regulations. The Department will await the EPA's regulatory response before making a decision in a regulatory vacuum until EPA issues another regulation. The law allows EPA time to develop a regulation and there is no reason for the Department to guess what EPA may do and have a wrong decision be reflected in the Title V permit. The federal authority preempts the State's in the Title V permit process. Thus, I agree with the Department's experts that no decision need be made until EPA sets its regulatory policy in a regulation or provides the Department with other guidance in its review of the proposed permit.

I address the issue of the frequency of the Facility's Title V renewal applications and to those commenters that requested limiting the duration of the permit's term to less than five years. I find the public comments to be an unreasonable and unwarranted burden on the Applicant and the Department. The experts in AQMS would be burdened by the change to a shorter term than five years and the amount of work needed, particularly if a public hearing is requested. The Department has discretion to establish the permit's duration of up to five years and five year terms has been the standard length. I have seen no reason to shorten the duration of the standard term, but should circumstances change the Department has the authority to react and respond based upon the flexibility given the Department in the permit's conditions to respond to problems. This is the appropriate and prudent way to regulate the Facility and not require needless regulatory reviews and permit applications when the standard time five years between permit renewals provides sufficient protection of the environment, subject to continuing regulatory oversight of the Facility's many reports submitted to the Department and the Department's personnel's frequent physical inspections of the Facility.

The final issue I discuss is possible fugitive dust from the coal storage and ash landfill. The Department since the public hearing also has received complaints about such dust and taken

action. Nevertheless, the proposed permit will regulate such air emissions as it does for other forms of dust particles, namely, to require in its permit that no fugitive dust should escape from the Facility's land area and that such dust problems could trigger an enforcement action. The Department's regulation of dust consistently uses this form of regulation to allow industrial operations, such as the Facility's, to operate and create dust, but the dust must be kept within the property lines of the Facility. I find this to be a reasonable and balanced form of regulation and recommend that the public comment that seeks to cease the formation of any dust or greater control than provided by the draft permit should be rejected.

In sum, the above discussion highlights some of the issues raised by the public comments and the Response Document provides a comprehensive reply to the public comments. The administrative record and the Department's experts provide a record to support issuance of an order approving submitting a proposed permit, in the form prepared by AQMS as submitted to me, to EPA for its further review and approval.

#### **IV. RECOMMENDED CONCLUSIONS**

Based on the record developed, I conclude that the record supports approval of the permit for the air pollution control equipment in the application and recommend that the Secretary adopt the following:

1. The Department has jurisdiction under its statutory authority to make a determination in this proceeding;
2. The Department provided adequate public notice of the proceeding and the public hearing in a manner required by the law and regulations;
3. The Department held a public hearing in a manner required by the law and regulations;

4. The Department considered all timely and relevant public comments in making its determination;

5. The Department has developed a sufficient record to support its final decision to issue the proposed permit for EPA review and has considered the relevant public comments in making its decision;

6. The proposed permit, as prepared by AQMS in response to its post-hearing consideration of public comments and further investigation, reflects a proposed permit that is consistent with the underlying laws and Regulations and will protect the public and the environment from the undue risk of harm from air pollution;

7. The Department, upon EPA review and approval of the proposed permit or any modifications made by EPA, shall issue Applicant a permit consistent with this Order, and that;

6. The Department shall provide notice of this action by mail or email on each person who requested to receive such notice, as shown on the public hearing sign in sheet or in written correspondence to the Department.

*s/Robert P. Haynes*  
Robert P. Haynes, Esquire  
Senior Hearing Officer

## MEMORANDUM

TO: Robert P. Haynes, Hearing Officer

THROUGH: James D. Werner, Division Director  
Ali Mirzakhali, P.E. Program Administrator  
Paul E. Foster, P.E., Program Manager II  
Joanna L. French, P.E., Engineer IV

FROM: Thomas I. Lilly, P.E., Engineer IV

SUBJECT: Indian River Power, LLC, Indian River Generating Station  
Report on Public Hearing Held July 15, 2008  
**Title V Permit Renewal**

DATE: November 19, 2008

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Provided are the Air Quality Management Section=s (AQMS) responses to the written comments and comments made at the public hearing held on July 15, 2008 regarding the Indian River Power, LLC, Indian River Generating Station located at Power Plant Road, P. O. Box 408, Millsboro, Delaware. These responses cover all issues raised during the hearing and those addressed in the comments from EPA, Mid-Atlantic Environmental Law Center, John Austin, Green Delaware, and the Sierra Club.

This memo summarizes the issues and provides responses to specific comments. The attachments contain the following information:

- Attachment 1 Air Quality Management responses to Hearing Proceedings
- Attachment 2 Exhibit list table, Summary List of public record correspondence and comments (emails, copies of public hearing presentations, and other letters).
- Attachment 3 Summary of recommended changes made to draft Title V permit to be placed in the proposed permit renewal
- Attachment 4 EPA March 26, 2008 comments and Department Responses regarding the memorandum and draft/proposed Title V permit renewal
- Attachment 5 John Austin's March 26, 2008 comments and Department Responses regarding the draft/proposed Title V permit renewal
- Attachment 6 MAELC April 1, 2008 comments and Department Responses regarding the draft/proposed Title V permit renewal
- Attachment 7 Sierra Club July 15, 2008 comments and Department Responses regarding the draft/proposed Title V permit renewal
- Attachment 8 Green Delaware July 15, 2008 comments and Department Responses regarding the draft/proposed Title V permit renewal
- Attachment 9 Sierra Club July 29, 2008 comments and Department Responses regarding the draft/proposed Title V permit renewal

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Attachment 10 MAELC July 29, 2008 comments and Department Responses regarding the draft/proposed  
Title V permit renewal

**Recommendation**

It is recommended that the proposed permit be prepared by modifying the draft permit to include the suggested changes detailed in Attachment 3. All applicable requirements were placed in the advertised draft Title V permit and will remain in the proposed permit. The changes to the permit were not of a nature which would require the permit to be re-advertised. If you have any questions, please feel free to call Tom Lilly or Joanna French at (302) 739-9402.

PEF:JLF:TIL  
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pc: Dover Title V File

This table lists all of the exhibits presented by the Department at the Indian River Power LLC public hearing.

**Exhibit List**

<b>Exhibit Number</b>	<b>Description</b>	<b>Response Required</b>
1	Permit Renewal Application Received April 18, 2007	No
2	Letter From Shaw Environmental Inc Dated April 18, 2007 Correcting Potential To Emit Calculation In The Renewal Application	No
3	Letter From Indian River Power LLC (NRG Energy, Inc.) Dated May 1, 2007 Containing Signed Signature Pages For The Renewal Application	No
4	Letter from Department Dated May 10, 2008: Application Judged Administratively Complete	No
5	Department's May 18, 2007 Letter Requesting Additional Information	No
6	Indian River Power LLC Response to Request for Additional Information Dated June 12, 2007	No
7	Indian River Power, LLC Permit Shield Request Dated August 23, 2007	No.
8	Indian River Power, LLC Letter Dated August 30, 2007 Regarding Defining Ranges For The Compliance Assurance Monitoring Plan	No.
9	Indian River Power LLC's December 14, 2007 amendment to CAM Plan	No.
10	E-mail by Department of Pre-Notification Permit to Indian River Power LLC	No.
11	Indian River Power LLC's February 19, 2008 Comments on Pre-Notification	No.
12	Department's February 29, 2008 Responses to Comments	No.
13	Indian River Power LLC Draft/Proposed Renewal Permit and Memo	No.
14	Affidavits Of Publication For Draft/Proposed Renewal Permit	No.
15	March 26, 2008 Letter With Comments (No Request For A Hearing)	Yes. See Attachment 5.
16	April 1, 2008 Letter Requesting A Hearing	Yes. See Attachment 6.
17	Affidavit Of Publication For Public Hearing	No.
18	Letters Of Notification Of The Public Hearing To The Company and Others	No.

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This table lists all of the comments and exhibits received by the Department for the Indian River Power LLC Title V permit renewal.

### Exhibit List

<b>Exhibit Number</b>	<b>Description</b>	<b>Response Required</b>
None.	EPA March 26, 2008 comments regarding the memorandum and draft/proposed Title V permit renewal	Yes See Attachment 4.
Department 15	John Austin's comments regarding the draft/proposed Title V permit renewal	Yes See Attachment 5.
Department 16	MAELC April 1, 2008 comments regarding the draft/proposed Title V permit renewal	Yes See Attachment 6.
Austin	Submitted three (3) exhibits for the public hearing record.	No. See Attachment 1 Table III page 1.
Sierra Club 1	Sierra Club July 15, 2008 public hearing presentation comments regarding the draft/proposed Title V permit renewal	Yes See Attachment 7.
Furtado 1	Article: Effects of prenatal Exposure to Coal-Burning Pollutants on Children's Development in China	No. See Attachment 1 Table III page 2.
Deaver 1	Cape Gazette Editorial – Our appeal: Clean up the air	No. See Attachment 1 Table III page 2.
Jaeger 1	Statement Regarding NRG Request To Continue Operating The Indian River Plant For An Additional 5 Years	No. See Attachment 1 Table III page 2.
Green Delaware 1	Green Delaware July 15, 2008 comments regarding the draft/proposed Title V permit renewal	Yes See Attachment 8.
Overland 1	Email of Article: Effects of prenatal Exposure to Coal-Burning Pollutants on Children's Development in China	No. See Attachment 1 Table III page 2.
Austin 2	Email dated July 18, 2008 of additional comments regarding draft/proposed Title V permit renewal	Yes See Attachment 1 Table III page 3.
Sierra Club 2	Email Follow-up Testimony re. NRG draft operating permit dated July 29, 2008	Yes See Attachment 9.
MAELC 2	Email dated July 29, 2008 of MAELC comments regarding the draft/proposed Title V permit renewal	Yes See Attachment 10.

## Changes to Draft Permit to be made to the Proposed Title V Permit

Additional information regarding these changes can be found in Attachments 1, 4, 6 and 10. The Title V permit template format has been changed. The proposed Title V permit renewal has been placed in the new format.

<b>Changes Made To The Title V Permit</b>	
<b>Change</b>	<b>Comment</b>
<p>Condition 3 – Table 1(a)(2)(vii), 1(b)(2)(vii), and 1(c)(2)(vii)</p> <p>In addition to that required by Condition 3(b)(1)(ii) of this permit, the Company shall conduct Department approved testing for particulate as follows:</p> <ul style="list-style-type: none"> <li>A. When the previous test was less than 50% of the standard, once during the term of the Regulation No. 30 operating permit.</li> <li>B. When the previous test was 50% or greater of the standard, once every two years until the requirement of Condition 3 – Table 1(a/b/c)(2)(vii)(A) is met.</li> <li>C. The once per permit term testing shall be completed at a minimum of 120 days prior to the expiration of this permit term.</li> </ul>	<p>In relation to monitoring there were many comments that the Company should perform more frequent particulate stack testing. Even though stack testing is not monitoring, the Department has determined that the frequency of the testing should be based on a comparison to the particulate standard. The Department is revising the stack testing condition to be performance based.</p>
<p>Units 1 and 2 will be shut down to comply with the Consent Order in 2011 and 2010 respectively. Condition 3 - Table 1(a)(4)(i)(E) states "On and after January 1, 2012, NRG shall not exceed annual NOx mass emissions limits for each of its units as follows: Unit 1 – 601 tons; Unit 2 – 628 tons."</p> <p>The Consent Order is worded such that even though the units will be shut down they could potentially be returned to service by meeting the requirements specified in the Consent Order. The wording in the Consent Order is "NRG shall not operate any effected Units beyond January 1, 2012, except in full compliance with the emissions limitations required by this Consent Order, Regulation 1146, and any other applicable federal or state requirements." Condition 3 Table 1(a)(3)(i), 1(a)(4)(i)(E), and 1(a)(6)(i)(B) will be changed in the permit to this Consent Order wording.</p> <p>The condition numbers are now Condition 3 – Table 1(a)(3)(ii), 1(a)(4)(ii)(E), are 1(a)(6)(ii)(B).</p>	<p>First, on p. 21 of the permit, Condition 3, Mothballing of Unit 2 by 2010 and Unit 1 by 2011, is inconsistent with the p. 23 Condition 3, (a)(3)(i) SO2 limits for Units 1 and 2 which are applicable after 2012, and with the p. 29 Condition 3, (n)(4)(i) Emission Limitations, E., NOx mass limits given after 2012. Permit terms that refer to emission limits for Units 1 and 2 at times after which they are to be shut down pursuant to a consent order are not logical and should be removed.</p>
<p>Condition 3 – Table 1 (a)(4)(v)(D) was changed as underlined to "Compliance with the emission limitations of Condition 3 -Table 1(a)(4)(i)(E) and (F) shall not be achieved by using, tendering, or otherwise acquiring <u>NOx</u> allowances under any state or federal emission trading program."</p>	<p>The term SO2 in the condition should be changed to NOx.</p>

### Changes Made To The Title V Permit

Change	Comment
<p>There is a typographic error in Condition 3 Table 1(a)(6)(vii)(C) that references Condition 3 – Table 1(a)(6)(iv). It should reference the mercury CEMS identified in Condition 3 – Table 1(a)(6)(iii)(D). Compliance with the limits regardless of the control method will be determined with mercury CEMS.</p> <p>There is a typographic error in Condition 3 Table 1(b)(6)(vii)(C) that references Condition 3 – Table 1(b)(6)(iv). It should reference the mercury CEMS identified in Condition 3 – Table 1(b)(6)(iv)(D). Compliance with the limits regardless of the control method will be determined with mercury CEMS.</p> <p>There is a typographic error in Condition 3 Table 1(c)(6)(vii)(C) that references Condition 3 – Table 1(c)(6)(iv). It should reference the mercury CEMS identified in Condition 3 – Table 1(c)(6)(iv)(D). Compliance with the limits regardless of the control method will be determined with mercury CEMS.</p> <p>All reference numbers have been corrected to the new permit template format.</p>	<p>Condition 3 Table 1 . (a)(6)(vii)(C) (p. 43) indicates that the control technology for achieving the emission limitations for mercury will be tested according to another section of the permit (Condition 3 Table 1, (a)(6)(iv)) (p. 38).</p>
<p>Condition No. 3 – Table 1(c)(2)(v)(B) was changed as underlined to “Particulate emissions calculated using AP-42 factors and maximum firing rate equal to 0.014 lb/MMBTU when fired on No. 2 fuel oil. Therefore, compliance with the emission limitations can be consistently demonstrated <u>when</u> No. 2 fuel oil is the fuel used to fire the <u>boiler</u>. Compliance shall be based upon record keeping.</p>	<p><i>A There is a typo in the statement “Therefore, compliance with the emission limitations can be consistently demonstrated for number 2 fuel oil is the fuel used to fire the boilers.</i></p>
<p>The permit will be modified to specify the manufacturer recommended pressure drop ranges of 0 to 17 inches of water column for the cyclone collector and baghouse.</p> <p>This required modifying Condition 3 – Table 1(g)(1)(iv)(D), by the new format, to “The Company shall operate the fly ash transfer within the pressure range of 0 through 17 inches of water column.”</p> <p>Also new Condition 3 – Table 1(g)(vi)(D), by the new format, was added for monitoring stating “The fly ash baghouse and cyclone pressure drops once each shift.”</p>	<p>A permit must be written so it is possible to adduce whether the facility is complying with the required conditions. For example, in Condition 3 – Table 1(g)(1)(ii)(D) p. 109, it is insufficient to state that for Emission Units 8 and 9 “The Company shall operate the fly ash transfer within the pressure range recommended by the manufacturer.” Specific numbers are required to be incorporated to make this condition practicably enforceable. The condition, in its current state, is based upon a separate document that is not easily accessible and may not be clear as to the pressure range requirements. This language is inadequate because it cannot be known from the term of the permit or with incorporated and appended documents whether the Company is complying with the permit.</p>

**Changes Made To The Title V Permit**

Change	Comment
<p>The Company replaced a coal delivery and conveying operations for Units 1, 2, and 3 with systems that controlled emissions of particulate. The particulate emissions of 0.35 tons specified in the permit are for these operations. Therefore to clarify, Condition 3 – Table 1(l)(1)(i)(C) has been modified to include the wording “From Units 1, 2, and 3 coal delivery and conveying operations.”</p> <p>This is now Condition 3 – Table 1(l)(1)(ii).</p>	<p>Emission Unit 16 at the Facility is a 20-acre coal pile where the coal is stored. According to information provided in the Renewal application, AP-42 emission factors for a coal pile of this nature estimates over 300 tons per year of particulates as fugitive emissions due to wind erosion. The proposed permit at Condition 3. (l)(1) limits this emission unit to .35 tons per rolling 12 month period.</p>
<p>The conditions are being returned to as contained in Condition 3 Table 1(n) of the original permit.</p> <p>v. Compliance</p> <ul style="list-style-type: none"> <li>A. If any of the operational limitations of Condition 3- Table 1(n)(1)(ii) have been violated then there has been an occurrence of excess emissions.</li> <li>B. Compliance shall be demonstrated by adherence with the VOC handling work practices by providing appropriate training and posting of instructions, and record keeping for storage, use and disposal of VOC's.</li> </ul> <p>vi. Monitoring:</p> <p>The Company shall monitor:</p> <ul style="list-style-type: none"> <li>A. For each day on which VOCs are disposed of in a manner that would permit evaporation of VOCs into the ambient air, the Company shall identify the source and quantity (pounds) of these disposed VOCs.</li> <li>B. Each day, the Company shall monitor employee adherence to the operational limitations of Condition 3 - Table 1(o)(1)(ii).</li> <li>C. Each month, the Company shall monitor VOC work practice training records for each employee and update records as needed.</li> </ul> <p>vii. Reporting</p> <p>The Company shall report all exceedances of the emission limitation and operational limitations, with supporting records, in accordance with Condition 3(c)(2) of this permit.</p>	<p>The proposed change to VOC Disposal does not advance the policies that Title V Permits advocate with reduced monitoring, record keeping, reporting and compliance.</p>

<b>Changes Made To The Title V Permit</b>	
<b>Change</b>	<b>Comment</b>
<p>The effect of this consent order is that Indian River is in compliance as long as they abide by the consent order. The Effect of Settlement stated in the consent order is "Satisfaction of the requirements of this Consent Order constitutes full settlement of, and shall forever resolve all civil liability of NRG, including its subsidiaries, Indian River Power LLC and Indian River Operations Inc., to the State of Delaware for, noncompliance with the requirements of Regulation 1146, Section 8.2.4 (relating to the Compliance Plan), Section 5.1 (Phase I SO2 Emissions Rate), and Section 4.1 (the Phase I NOX Emission Rate), Section 4.2 (NOx annual limit through December 31, 2011), Section 5.3 (SO2 annual limit through December 31, 2011), and the NOV issued against NRG on September 10, 2007, related to the Compliance Plan submitted pursuant to Section 8.2.3 of Regulation 1146." Though redundant this statement will be included in the permit in Condition 5 Compliance Schedule.</p> <p>The Compliance Schedule will also include an explanatory description.</p> <p>"The stated applicable Consent Order requirements can be located in the permit,</p> <ul style="list-style-type: none"> <li>• For SO2 Emissions in Condition 3 - Table 1(a)(3) beginning on page 23, Condition 3 - Table 1(b)(3) beginning on page 40, and Condition 3 - Table 1(c)(3) beginning on page 57, and</li> <li>• For NOX Emissions in Condition 3 - Table 1(a)(4) beginning on page 27, Condition 3 - Table 1(b)(4) beginning on page 44, and Condition 3 - Table 1(c)(3) beginning on page 62."</li> </ul>	<p>The compliance schedules in the Renewal application have been left blank but for the indication "N/A". We disagree. In addition to the potential violations at the ash landfill and with the PM stack test. the Facility has exceeded its opacity limitations on many occasions. Further, the Facility has failed to comply with Regulation 1 146, which called upon power plants in Delaware to significantly reduce SO2, NOx, and Mercury emissions. NRG, the corporate parent of Indian River, LLC. and the plant operator. negotiated with DNREC and is now subject to a Consent Order that requires the Facility to meet or exceed regulatory limits by dates 2-4 years subsequent to the regulatory deadlines. This is the perfect example of a compliance schedule. Thus, it is hard to fathom that DNREC would state as Condition 5 on p. 14 1 of the proposed permit that "the facility is not subject to a compliance schedule." To the contrary. it most certainly is, and the Consent Order driven requirements on emission limits to the 4 main boilers are replete in Condition 3. It is nevertheless required that these upcoming stages be acknowledged under a compliance schedule.</p>

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Attachment 1

Attachment 2

Attachment 3

Attachment 4

Attachment 5

Attachment 6

Attachment 7

Attachment 8

Attachment 9

Attachment 10