

US EPA ARCHIVE DOCUMENT

**INTERNATIONAL PAPER
PEMS XL PROJECT**

**FINAL PROJECT AGREEMENT
January 19, 2000**

Final Project Agreement
International Paper PEMS Project
1-19-00

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I. Introduction to the Agreement

A. Project Signatories

The Project Signatories to this Final Project Agreement (FPA or Agreement) are the International Paper Company, Androscoggin Mill (IP) located in Jay, Maine, the U.S. Environmental Protection Agency (EPA), the Maine Department of Environmental Protection (ME DEP), and the Town of Jay, Maine. All of those listed are referred to collectively as “Project Signatories;” the three regulatory agencies mentioned above are referred to collectively as “the Agencies.”

B. Purpose of the XL Program

This FPA states the intentions of the Project Signatories to carry out a pilot project as part of EPA’s “Project XL” which tests innovative approaches to environmental protection. Project XL is an EPA initiative to test the extent to which regulatory flexibility, and other innovative environmental approaches, can be implemented to achieve both superior environmental performance and reduced economic and administrative burdens. (See 60 FR 27282).

C. Purpose of this FPA

This FPA is a joint statement of the Project Signatories’ plans and intentions with respect to the International Paper Predictive Emission Monitoring System XL Project (“IP XL PEMS Project”). This FPA outlines the details of how this project will be implemented and measured and sets forth the regulatory flexibility -- specifically the Testing Agreement and a State Implementation Plan (SIP) Amendment -- that are necessary to implement this project.

This FPA sets forth the plans of the Project Signatories and represents the firm commitment of each signatory to support the XL process, to implement the necessary regulatory flexibility in a timely fashion and to follow the terms of this FPA. This FPA is not, however, intended to create legal rights or obligations and is not a contract, a final agency action or a regulatory action such as a permit or rule. This FPA does not give anyone a right to sue the Project Signatories for any alleged failure to implement its terms, either to compel implementation or to recover damages.

This FPA and materials relating to this project are available on the Project XL Web Site at www.epa.gov/projectxl.

II. Description of the Project

International Paper’s Androscoggin Mill (IP) located in Jay, Maine is proposing to develop, test and

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implement a computer model that can accurately predict pollutant emissions on a continuous basis. The computer model which IP proposes to develop is called a Predictive Emissions Monitoring System (PEMS). The project proposes to develop and subsequently install the PEMS on IP's waste fuel incinerator (WFI) – which is a type of boiler that burns paper mill waste products including wood chips, pelletized paper, sludge, bark and 1.8% sulfur fuel to produce steam. The PEMS would model the relationship between the WFI operating conditions (which include variables such as burn rate and fuel type) and emissions rates to continuously predict pollutant emissions. Pollutants that are emitted from the WFI and that will be modeled as part of this XL Project include particulate matter (PM), SO₂, NO_x, CO₂ and CO.

PEMS have been developed and implemented for simple stacks such as gas fired boilers, but have had very limited application for complex, saturated stacks such as waste fuel incinerators. While continuous emission monitors (CEMs) are currently required by IP's license for SO₂ and NO_x emissions from the WFI, currently, there are no federally-approved methods for continuously monitoring particulate matter from saturated stacks. (PM emissions from the WFI are currently subject to annual stack tests.) Thus, one of the primary objectives of this project is to determine whether the PEMS technology can be used to provide such continuous information for PM emissions from a complex, saturated stack. If the PEMS are determined to be successful, ME DEP would submit, and EPA would intend to approve, a SIP amendment that would allow PEMS to become the approved continuous monitoring method on the WFI for all emission sources.

There are several other important objectives of this XL project, some of which could have broad applicability. First, the PEMS technology will allow IP to optimize stack emissions and production rates by developing a linkage between emission rates and production rates and the operating parameters that affect them. Second, by identifying continuous emission levels and key operating parameters, the PEMS would provide instant compliance information, allowing mill operators to proactively prevent potential non-compliance situations and stay within permitted limits. If the PEMS is effective, corrective actions would thus be triggered before an exceedence occurred and potential violations would be avoided. This type of proactive compliance is not possible when using traditional CEM systems and stack tests; such “end-of-pipe”-type monitors identify violations, but only after the release has already occurred. Finally, if successful, the PEMS technology might be transferable to other complex sources of air pollution, including stacks with high moisture content.

As part of this project, IP is also making a voluntary commitment to maintain all emissions from the WFI at or below 90% of its license limits once the PEMS are implemented and formal validation has occurred. (See Appendix 1 for excerpt of relevant portion of IP's existing state license). To implement this XL Project, and as discussed more fully in the next section, IP requests two types of regulatory flexibility. In order to adequately develop the PEMS computer model, IP must be able to exceed, under controlled and limited circumstances, its license limits on the WFI. The ability to exceed license limits during model development, validation and calibration is the only way that IP can ensure that the

PEMS model will accurately predict actual exceedences if they occur once the PEMS are operating. The document that embodies the terms and limitations of any potential exceedences is the Testing Agreement which is attached as Appendix 2 and any terms that are more stringent than, but not inconsistent with, the Testing Agreement as set forth in a Testing Agreement Letter signed by ME DEP. (Appendix 3).

The second type of flexibility that IP seeks is a SIP amendment that will allow IP, if they make all the necessary showings as set forth in the next section, to replace their continuous emission monitors (CEMs) with the PEMS. Further, IP agrees, and the SIP amendment will state, that once the SIP amendment is approved by EPA, data generated by the PEMS as well as any other credible evidence of non-compliance, may be used in any action to determine compliance with the emission limits on the WFI.

After the signing of the FPA, IP, consistent with the terms set forth in the Testing Agreement and Test Plan (attached as Appendix 4), will develop the PEMS computer model. This process is expected to take at least six months. Thereafter, the PEMS will be subject to three Formal Validation Tests and one Annual Model Specifications Test to confirm the accuracy of the PEMS. These tests will be used in conjunction with other factors identified by EPA, ME DEP, the Town of Jay and other stakeholders to evaluate the success of the project. (See Section IV.G and Section 4 of the Test Plan which discuss monitoring and evaluation of the project in greater detail).

III. Regulatory Relief Requested

International Paper seeks regulatory flexibility in two areas:

A. Testing Agreement -- For Potential Exceedences During PEMS Development, Validation and Calibration

IP requests flexibility to exceed WFI emission limits in order to fully develop, test and calibrate the PEMS technology. These scheduled exceedences are critical so that IP, EPA, ME DEP, the Town of Jay and stakeholders can confirm the PEMS' ability to identify license exceedences. If, during model development, the PEMS model is not presented with examples of what constitutes an exceedence, it will have no way of identifying such exceedences if they actually occur during use of the PEMS. A PEMS can interpolate data; it cannot extrapolate. Thus, data points outside the system's "experience" would be blind spots.

The terms that apply to any potential exceedences are set forth in the attached Testing Agreement, the terms of which are incorporated by reference into this FPA. (Attached as Appendix 2). ME DEP has issued a parallel agreement in the form of a Testing Agreement Letter to IP. (Attached as Appendix 3). The Agencies intend for both agreements to provide IP with the same level of flexibility to exceed WFI

emission limits for the purposes set forth in the FPA. IP must comply, however, with the more stringent requirements of EPA's Testing Agreement, unless additional requirements or limitations that are not inconsistent with this agreement are explicitly or implicitly required through implementation of Maine's Testing Agreement Letter. Thus, IP may permissibly exceed license limits on the WFI only during the time frames and in accordance with the exact terms as set forth in the Testing Agreement and Test Plan (the latter is attached as Appendix 4). IP shall operate the WFI in compliance with all applicable regulatory requirements at all other times during the project term. While the Testing Agreement should be consulted for the applicable and exact terms that have been negotiated and agreed to, the most significant of its terms provide that:

1. It applies only to emissions from the WFI -- specifically PM, SO₂, NO_x, CO₂ and CO;
2. All testing shall be conducted consistent with the Test Plan which is appended to the Testing Agreement (and is attached to this FPA as Appendix 4);
3. IP agrees not to violate National Ambient Air Quality Standards (NAAQS);
4. The Testing Agreement has a thirty-month term that can be extended by agreement of all the signatories to the Testing Agreement;
5. The exceedences may occur only during model development, validation and calibration (and thus, EPA and the Town of Jay will have notice of when such exceedences may occur); and that
6. Termination of the Testing Agreement may occur by any signatory. Specifically, EPA may terminate testing at any time if EPA determines that conditions exist which may cause a violation of NAAQS or present an imminent and substantial endangerment, or for failure to test in a manner consistent with the Testing Agreement or the Test Plan or for other cause shown. IP, may in its discretion, terminate the testing at any time and without cause.

B. SIP Amendment – Removal of CEMs and Stack Testing Requirements

IP asks for regulatory flexibility in the form of replacement of stack testing and Continuous Emissions Monitoring (CEM) requirements with PEMS if the PEMS is determined to be reliable in providing a predictive measurement of relevant pollutants. Specifically, as set forth in IP's license and other applicable requirements, IP must currently monitor SO₂ and NO_x with CEMs technology. Stack tests must currently be performed every year for PM.

Prior to providing such regulatory flexibility, EPA, ME DEP and the Town of Jay will determine, consistent with the purpose of Project XL to test innovative approaches to achieving superior environmental results, whether the tests performed pursuant to the Testing Agreement demonstrate that the PEMS provides equivalent environmental protection to CEMS, including equivalent reliability, sufficient to go forward with the experimental XL project.¹ In determining reliability, EPA, ME DEP and the Town of Jay will consider, among other things, the margin of error based on EPA's performance specifications² and the PEMS's ability to meet periodic quality assurance tests.

As set forth in the Test Plan (Sections 1.5, 4.5-4.5.2), the PEMS will be developed and tested according to the following approximate time frame (which may vary due to weather and operating conditions) which will commence after the signing of the FPA. EPA, ME DEP, the Town of Jay and other stakeholders will analyze these test results to determine whether the PEMS have been successful:

- Month 0 IP gives two-week written notice to EPA, ME DEP and Town of Jay that PEMS model development is set to begin.
- Months 1-6 Development of PEMS Model.
- Month 7 Formal Validation Test Number 1 (see Test Plan 4.5.1).
- Month 10 Formal Validation Test Number 2 (see Test Plan 4.5.1).
- Month 13 Formal Validation Test Number 3 (see Test Plan 4.5.1).
- Month 25 Annual Model Specifications Test (see Test Plan 4.5.2).
- Month 26 Project Completion: EPA, ME DEP, Town of Jay, stakeholders determine success/failure of project.

At the conclusion of the Annual Model Specifications Test, the PEMS should achieve at least the

¹ "A project that is not at least equivalent, based on the factors discussed in Tier 1, can not be considered superior overall. Tier 2 is an examination of factors, both quantitative and qualitative, that lead EPA to judge that a project will produce a superior level of environmental performance that merits testing the innovation being proposed." 62 Fed. Reg. 19872, 19874 (April 23, 1997).

² See Example Performance Specifications - Example Specifications and Test Procedures for Predictive Emission Monitoring Systems" (EPA Draft Document, 1996) incorporated by reference into the Test Plan.

objectives outlined in IP's project application to:

1. Develop a model based on the PEMS real-time results to provide feedback on operation controls of the waste fuel incinerator to reduce emissions. The model should:
 - a. Numerically correlate operating parameters to emission rates;
 - b. Accurately predict emission rates on a continuous basis;
 - c. Identify optimal operating conditions to achieve decreased emission rates while maintaining efficient production; and
 - d. Provide alarms to provide immediate notification of potential exceedences;
2. Meet the PEMS performance specifications for predicting particulate and other pollutant emissions on a continuous basis using process operation data and a high order, nonlinear regression mathematical model using an advanced neural network; and
3. Assure that no exceedences of permit limits will occur from the WFI (except as contemplated for periods of development, validation and calibration under the Testing Agreement).

In the event that sufficient data are not generated, EPA may require additional testing. If at the end of the Annual Model Specifications Test, the PEMS is determined to be successful based upon the above criteria, EPA, ME DEP and the Town of Jay intend to take appropriate actions to grant the experimental regulatory flexibility, subject to public notice and consideration of public comments, and to continuing quality assurance and other requirements after operations begin.

Specifically, if the PEMS is determined to be successful based on the above criteria, ME DEP will submit to EPA a SIP amendment, which EPA intends to approve as expeditiously as possible, to allow IP the option of removing CEMs which are currently required by existing regulations and requirements for SO₂ and NO_x. Until the SIP amendment is formally approved by EPA, CEMs and PEMS will operate concurrently.

The Project Signatories agree that if IP makes the necessary showing as outlined above, the SIP amendment will³, subject to all necessary public notice and comment procedures:

³The SIP Amendment will also close-out an existing Consent Decree (U.S.A v. International Paper, State of Maine v. International Paper, Civ. Nos. 89-0172-B, 89-0171-B), the terms of which

1. Offer IP the choice of removing CEMs for SO₂ and NO_x and implementing PEMS for SO₂, NO_x and PM;
2. Provide that PEMS data for all emissions from the WFI may be used as evidence probative of compliance with emission limitations on the WFI. Other credible evidence of compliance with regulatory requirements will remain available in all proceedings;
3. Replace the requirement to stack test (assuming PEMS is implemented by IP) for particulate matter emissions every two years; and
4. Require an annual test and/or other appropriate continuing quality assurance requirements for the PEMS that would be analyzed by ME DEP.

IV. Project XL Acceptance Criteria

A. Anticipated Superior Environmental Performance

The primary goal of this XL Project is to develop an innovative state-of-the art monitoring system. Therefore, the primary environmental benefit is the increased information on environmental emissions, particularly particulate emissions. Table 1 shows existing pollutant monitoring requirements for the WFI as specified in the IP’s license issued by ME DEP. As shown, when the PEMS is in place, monitoring frequency for particulate matter will increase significantly. For particulate matter, implementation of PEMS will result in an increase to approximately 480,000 data points (8,000 hours/year (this assumes down-time of 10%) x 60 data points/hour) from the currently-required four. This improved information on PM emissions represents a significant contribution to increasing emission information on a commonly-emitted pollutant. In addition, monitoring requirements and emission predictions for CO and CO₂ increase from none to continuous. Monitoring frequency would remain the same for NO_x and SO₂.

Table 1

<u>Pollutants</u>	<u>Current Monitoring Methodolog</u> <u>y</u>	<u>Current Monitoring Frequency</u>	<u>PEMS Output Frequency</u>	<u>Change in Frequency</u>	<u>Additional Info Provided by PEMS System</u>

have been, and continue to be, met by IP. ME DEP will submit a SIP amendment to close out this decree, even if this project does not result in a SIP amendment for the PEMS.

Particulate Matter	Annual Stack Test	(comprised of) 4 one-hr tests/yr	Approx. 8000 hrs x 60 data points/hr	Increases to 480,000 data points from 4	Minute-by-minute operational and emissions data
Nitrogen Oxides	CEM and RATA	Continuous,* end-of-pipe	Continuous*	Remains the Same	Minute-by-minute operational data
Sulfur Dioxide	CEM and RATA	Continuous,* end-of-pipe	Continuous*	Remains the Same	Minute-by-minute operational data
Carbon Monoxide	Stack Test	Annual	Approx. 8000 hrs x 60 data points/hr	Increases to 480,000 data points from 4	Minute-by-minute operational and emissions data
Carbon Dioxide	None**	N/A	Approx. 8000 hrs x 60 data points/hr	Increases to 480,000 data points from 0	Minute-by-minute operational and emissions data

(*) CEMs data is collected in one minute increments and this frequency would likely be continued when converted over to PEMS.

(**) not monitored

Currently applicable requirements require traditional end-of-pipe periodic stack testing and CEMs which are designed to record both compliance and non-compliance with permit limits when a violation actually occurs. With this system, there is no opportunity to prevent or lower emissions at the time of measurement. By identifying key operating parameters, the PEMS will allow IP to directly correlate the relationship between varying operational parameters, to provide instant compliance information and predict emissions at the WFI, and will allow IP to take action to adjust emissions before the exceedence actually occurs.

Finally, as part of this project, IP agrees to voluntarily commit to maintain operations at a level equal or less than 90% of its maximum permitted emission limits. IP will attempt to accomplish this commitment by optimizing production so that emissions decrease while production remains the same or increases. IP will report to EPA on the status of this voluntary commitment every six months in the project status report.

B. Cost Savings, Paperwork Reduction and Operational Flexibility

International Paper anticipates spending in excess of \$200,000 to complete the PEMS. This estimate is for direct outside services labor, testing and reporting. It does not include mill labor and professional time to complete the project. A budget has been established to fund the project, and labor time has been allocated accordingly.

The estimated annual savings are about \$20,000 per year in expenses. These savings will be achieved through a reduction in maintenance and paperwork associated with existing NO_x and SO₂ CEMs. Modification of annual stack testing may provide additional savings of \$20,000 per year. Capital cost avoidance will be about \$50,000. These savings will be realized by elimination of the future necessity to purchase CO and PM CEMs.

C. Stakeholder Involvement and Support

The stakeholder process is essential to the potential success of this XL Project and its appropriate evaluation, including the model validation process. Significant state and local support have been instrumental in the development of this project. The State of Maine and Town of Jay are both Project Signatories to this Agreement. As such, several of their offices have been involved with the development and implementation of this project including: the Commissioner of ME DEP, the ME DEP Air Bureau, members of the Town of Jay Planning Board, Town of Jay Selectmen and the Town of Jay Code Enforcement Officer. The Penobscot Indian Nation has participated actively in this project. The Franklin County Soil and Water District has also been invited to participate directly in the process. Potential non-governmental stakeholders include, but are not limited to: Maine Lung, Environment Northeast, Alliance for Environmental Innovation and Western Mountain Alliance and the Jay High School Science Club.

Industrial member associations who have been asked to participate actively include: the Maine Pulp and Paper Association, National Council of Air Stream Improvement, certain emission monitor manufacturers, and members of the American Forest and Paper Association. Other organizations will be welcomed as active participants if they are willing to dedicate the time for meaningful participation.

Comments from all other organizations and individuals are welcomed throughout the stakeholder process. In particular, all stakeholders, including the general public, have been and will continue for the life of the project to be, notified through the local newspaper and through local radio announcements of meetings and the availability for review of documents, meeting notes and technical data generated during project implementation and testing. The stakeholder group will also be invited to participate and observe the work during project implementation.

D. Innovative Approach and Multi-media Pollution Prevention

The IP XL Project is innovative from technical, scientific and regulatory perspectives. PEMS are an innovative technology that provide valuable continuous information on particulate matter and other pollutant emissions. While PEMS have been developed for simple stacks (such as gas-fired boilers), they have had very limited application for complex stacks such as waste fuel incinerators. This proposal would seek to develop and use PEMS to estimate PM and other pollutant emission rates from a complex saturated stack. This would be one of the first applications of this technology to such a

complex emission source. Successful implementation of this project would provide continuous information on PM emission rates for sources that – to date– have no federally-approved methods to monitor particulate matter on a continuous basis from saturated stacks. Perhaps more importantly, PEMS can provide a linkage between emission rates and the operational parameters that affect them.

The IP XL Project will promote pollution prevention both through identifying source reduction opportunities for preventing pollution at its source and through setting voluntary goals to reduce emissions through preventative measures. Traditional monitoring techniques are often considered “end-of-pipe” and measure emissions but do not provide information on operational parameters affecting the emissions or how to reduce those emissions. The PEMS identifies operating parameters and uses them to predict emissions and link them to statistically significant parameter settings. The operator can then use this information to decrease emissions while maintaining production. Understanding the relationship between process variables and subsequent emissions is one of the first steps in pollution prevention planning. To that end, as discussed in Section III.A, IP aspires, as part of the project, to reduce emissions from the WFI by 10 percent of permitted limits.

E. Transferability of the Approach to Other Entities or Sectors

This project contains several elements that will potentially be transferable. If successful, it will help demonstrate that PEMS technology may be transferable to “complex” boilers, kilns and incinerators, rather than only the gas-fired boilers where PEMS are currently being used on a limited basis. A successful model will also provide information to industry on how best to operate efficiently while emitting the least amount of pollution possible. In addition, a successful PEMS model could have applicability to other sources of air pollution including stacks with high moisture content or those seeking to optimize operational controls while reducing emissions. Finally, even if this project is determined not to be successful, it will provide important technical data on the limitations on the use of PEMS on complex, saturated stacks, or areas where further development is needed.

F. Feasibility of the Project

IP has the financial capability, personnel and senior management commitment necessary to implement the elements of the IP XL Project.

The Agencies, by signing this FPA, agree to support the project, subject to any public review procedures necessary to implement the legal mechanism for the project.

G. Monitoring, Reporting, Accountability, and Evaluation Methods to be Used

EPA expects, and the rest of the Project Signatories agree, that project information will be made available to stakeholders in a form that is accessible and easy to understand. As described more fully in

the Test Plan, (see Section 4.8 -- Reports, Documents and Submissions), IP will make all data from the development, implementation and calibration of the PEMS available to stakeholders. Specifically, as set forth in the Test Plan (Section 4 -- PEMS Evaluation), the PEMS will be evaluated using EPA PEMS Model Specifications. Further, to evaluate the ongoing accuracy of the PEMS, IP will perform an Annual Model Specifications Test prior to project completion. (Test Plan, Section 4.5.2). Any information claimed to be confidential business information (CBI), disclosed by IP or otherwise discovered as a result of the testing, shall be treated in accordance with the regulations set forth in 40 C.F.R. Part 2.

All reporting data will also be posted on the web site at www.ipwfixl.com for this project.

H. Avoidance of Shifting the Risk Burden to Other Areas or Media

The implementation of PEMS on the WFI, if successful, will allow IP to provide information on continuous emissions of PM and to optimize emissions and reduce the chance for accidental exceedences. No shifting of the risk burden will occur.

V. Intentions and Commitments of Project Signatories

As discussed more fully within this FPA and documents attached to this FPA, IP agrees to:

1. Develop, implement and evaluate the PEMS in accordance with the terms of this FPA, the Testing Agreement, the Test Plan and in accordance with any future SIP amendment;
2. Supply monitoring and summary reports on project progress, as more fully set forth in Section IV.G and the Test Plan;
3. Invoke the necessary process adjustments when predicted emissions approach 90 percent of permitted limits on the WFI; and
4. Voluntarily commit to keep emissions from the WFI at #90 percent of permitted limits for the duration of the project term.

As discussed more fully in the FPA, the Agencies agree to:

1. Follow the terms of the Testing Agreement (see Appendix 2); and
2. Undertake the necessary procedures as expeditiously as possible, subject to all necessary notice and comment procedures, to finalize a SIP amendment for IP as discussed more fully in Section III.B.

VI. Legal Basis for the Project

A. Authority to Enter Into the Agreement

By signing this Agreement, EPA, ME DEP and the Town of Jay, and IP acknowledge and agree that they have the respective authorities, discretion and resources to enter into this Agreement and to implement all applicable provisions of this Project, as described in this Agreement.

B. Legal Effect of the Agreement

This Agreement states the intentions of the Project Signatories with respect to IP's PEMS XL Project. The Project Signatories state their intentions seriously and in good faith, and expect to carry out their stated intentions.

This Agreement in itself does not create or modify legal rights and obligations, is not a contract or a regulatory action such as a permit or rule, and is not legally binding or enforceable against any Project Signatory. Rather, it expresses the plans and intentions of the Project Signatories without making those plans and intentions binding requirements. This applies to the provisions of this Agreement that concern procedural as well as substantive matters. Thus, for example, the Agreement establishes procedures that the Project Signatories intend to follow with respect to dispute resolution and termination (see Sections VII.E and VII.A). However, while the Project Signatories fully intend to adhere to these procedures, they are not legally obligated to do so.

The Agencies intend to propose for public comment the SIP amendment needed to implement this XL Project. Any rules, permit modifications or legal mechanisms that implement this Project will be effective and enforceable as provided under applicable law.

This Agreement is not a "final agency action" by EPA or Maine DEP, because it does not create or modify legal rights or obligations and is not legally enforceable. This Agreement itself is not subject to judicial review or enforcement. Nothing any Project Signatory does or does not do that deviates from a provision of this Agreement, or that is alleged to deviate from a provision of this Agreement, can serve as the sole basis for any claim for damages, compensation or other relief against any Project Signatory.

C. Other Laws or Regulations That May Apply

Except as provided in the legal implementing mechanisms for the XL Project, the Project Signatories do not intend that this Final Project Agreement will modify any other existing or future laws or regulations.

D. Retention of Rights to Other Legal Remedies

Except as expressly provided in the legal implementing mechanisms described in Section III, nothing in this Agreement affects or limits EPA's, IP's, ME DEP's or the Town of Jay's legal rights. These rights include legal, equitable, civil, criminal or administrative claims or other relief regarding the enforcement of present or future applicable federal and state laws, rules, regulations or permits with respect to the facility.

Although IP does not intend to challenge agency actions implementing the Project (including any rule amendments, permit actions or other action) that are consistent with the Agreement, IP reserves any right it may have to appeal or otherwise challenge any EPA, ME DEP or Town of Jay action to implement the project. With regard to the legal implementing mechanisms, nothing in the Agreement is intended to limit IP's right of administrative or judicial appeal or review of those legal mechanisms, in accordance with the applicable procedures for such review.

VII. FPA Implementation Issues

A. Withdrawal From or Termination of the FPA

Because this FPA is not legally enforceable, no Project Signatory may be legally compelled to continue with the IP PEMS XL Project. However, it is the desire of the Project Signatories for the FPA to remain in effect and be implemented as fully as possible, and it is not their intent to terminate or withdraw from the FPA unless there is a compelling reason to do so.

The Project Signatories agree that appropriate grounds to seek withdrawal from the FPA could include, but are not limited to:

1. Substantial failure by any party to the Agreement to: a) comply with the provisions of the implementing mechanisms for this Project, or b) to act in accordance with the provisions of this Agreement;
2. Substantial failure of any party to the Agreement to disclose material facts during development of this Agreement;
3. Substantial failure of the XL Project to provide superior environmental performance consistent with the provisions of this Agreement;
4. Enactment or promulgation of any environmental, health or safety law or regulation after execution of the Agreement, which renders the Project legally, technically or economically impracticable; and/or
5. Decision by US EPA or ME DEP to reject the transfer of the Project to a new owner or operator of the facility.

US EPA, ME DEP and the Town of Jay do not intend to withdraw from the Agreement unless actions by IP constitute a substantial failure to act consistently with intentions expressed in this Agreement and its implementing mechanisms. IP will be given notice and a reasonable opportunity to remedy any “substantial failure” before EPA’s, ME DEP’s and/or the Town of Jay’s withdrawal. If there is a disagreement between the Project Signatories over whether a “substantial failure” exists, the Project Signatories will use the dispute resolution mechanism set forth in Section VII.E of this Agreement. US EPA, ME DEP and the Town of Jay retain their discretion to use existing enforcement authorities, including withdrawal or termination of this Project, as appropriate. IP retains any existing rights or abilities to defend itself against any enforcement actions, in accordance with applicable procedures.

B. Procedures for Withdrawal or Termination of the FPA

The Project Signatories agree that the following procedures will be used to withdraw from or terminate the Project before expiration of the Project term. They also agree that the implementing mechanism(s) will provide for withdrawal or termination consistent with these procedures.

1. Any Project Signatory that wants to terminate or withdraw from the Project is expected to provide written notice to the other parties at least sixty (60) days before the withdrawal or termination.
2. If requested by any Project Signatory during the sixty (60) day period noted above, the dispute resolution proceedings described in this Agreement may be initiated to resolve any dispute relating to the intended withdrawal or termination. If, following any dispute resolution or informal discussion, a Project Signatory still desires to withdraw or terminate, that Project Signatory will provide written notice of final withdrawal or termination to the other Project Signatories.

If any agency withdraws or terminates its participation in the Agreement, the remaining agencies will consult with IP to determine whether the Agreement should be continued in modified form, consistent with applicable federal or state law, or whether it should be terminated.

3. The procedures described in this Section apply only to the decision to withdraw or terminate participation in this Agreement. Procedures to be used in modifying or rescinding any legal implementing mechanisms will be governed by the terms of those legal mechanisms and applicable law.

C. Modification of the FPA

This Agreement may be modified by mutual agreement of all of the Project Signatories at any time during the duration of the Project. Any substantial modification will be subject to notice and comment in the Federal Register and must comport with XL acceptance criteria. The Project Sponsor will also

provide notice to stakeholders to solicit, and incorporate to the extent feasible, their input on any proposed modifications prior to publication or notice of availability in the Federal Register. The Project Signatories recognize that modifications to this Agreement may also necessitate modification of the legal implementing mechanisms or may require the development of new implementation mechanisms.

D. Duration of the Agreement

This Agreement will be in effect for no longer than four years from the date of the signing of the FPA, unless it is terminated earlier or extended by agreement of all Parties. (If the FPA is extended, the comments and input of stakeholders will be sought and a Federal Register Notice will be published.) Any Project Signatory may terminate its participation in this Project at any time in accordance with the procedures set forth in Sections VII A,B of this FPA.

E. Dispute Resolution

Any dispute which arises under or with respect to this Agreement will be subject to informal negotiations between the Project Signatories to the Agreement. The period of informal negotiations will not exceed twenty (20) calendar days from the time the dispute is first documented, unless that period is extended by a written agreement of the parties to the dispute. The dispute will be considered documented when one party sends a written Notice of Dispute to the other parties.

In the event that the parties cannot resolve a dispute through informal negotiations, the parties may invoke non-binding mediation by setting forth the nature of the dispute with a proposal for resolution to the Regional Administrator for EPA Region I. Prior to the issuance of an opinion, the Regional Administrator may request an additional, informal mediation hearing. If so requested, the Regional Administrator will attempt to resolve the dispute by issuing a written opinion that will be non-binding and does not constitute final EPA action. If this effort is not successful, the parties still have the option to terminate or withdraw from the Agreement, as set forth in Section VII A,B.

F. Transfer of Project Benefits and Responsibilities to a New Owner

The parties expect that the implementing mechanisms will allow for a transfer of IP's benefits and responsibilities under the Project to any future owner or operator upon request of IP and the new owner or operator, provided that the following conditions are met:

1. IP will provide written notice of any such proposed transfer to the EPA, ME DEP Town of Jay at least ninety (90) days before the effective date of the transfer. The notice is expected to include identification of the proposed new owner or operator, a description of its financial and technical capability to assume the obligations associated with the Project, and a statement of the new owner or operator's intention to take over the responsibilities in the XL Project of the existing owner or operator.

2. Within forty-five (45) days of receipt of the written notice, the Project Signatories expect that EPA, ME DEP, and Town of Jay, in consultation with stakeholders, will determine whether: a) the new owner or operator has demonstrated adequate capability to meet EPA's requirements for carrying out the XL Project; b) is willing to take over the responsibilities in the XL Project of the existing owner or operator; and c) is otherwise an appropriate Project XL partner. Other relevant factors, including the new owner or operator's record of compliance with Federal, State and local environmental requirements, may be considered as well.

It will be necessary to modify the Agreement to reflect the new owner and it may also be necessary for EPA, ME DEP, and the Town of Jay to amend the implementing mechanisms including the Testing Agreement (subject to applicable public notice and comment) to transfer the legal rights and obligations of IP under this Project to the proposed new owner or operator.

G. Project Completion or Termination

1. Project Completion if PEMS Found to Be Successful

In the event that the PEMS are determined to be a success after an analysis of the Annual Model Specifications Test by the Project Signatories, ME DEP will submit a SIP amendment that, among other things as discussed more fully in Section III.B, allows IP the choice of using PEMS (or CEMS) after termination of this XL Project. This XL Project will be terminated upon approval by EPA of the SIP amendment and implementation of any other necessary mechanisms by ME DEP.

2. Early Withdrawal, Termination or Project Failure

In the event of early withdrawal, termination or project failure as determined by the Project Signatories after an analysis of the Annual Model Specification Test, and where IP has made efforts in good faith, IP agrees that it will continue to use CEMS and comply with all stack test requirements as required by all applicable federal, state and local regulations. If determined to be necessary by the Agencies, IP will be required to submit a plan that sets forth the stack testing schedule to be undertaken after project termination.

H. Periodic Review

The Parties will confer, on a periodic basis (including schedules set forth in the Test Plan) to assess progress in implementing the XL Project. Unless it is agreed otherwise, a Periodic Performance Review Conference by the Project Signatories will take place at least every six months. The six month status reports may take the place of the conference, if agreed to by the Project Signatories. Not later than thirty (30) days following the conference, EPA will post a summary of the minutes and/or status reports to the IP XL Web Page and will provide identified and local stakeholders with a copy of the

summary minutes. Any additional comments of stakeholders will be reported to EPA, ME DEP and the Town of Jay.

The Agencies will review and evaluate the reports submitted by IP and the results of their independent inspections and audits, and determine whether the regulatory model for PEMS piloted in this XL Project should be proposed as a national model.

I. Effective Date

This FPA is effective on the date it is dated and signed by EPA's Regional Administrator for Region I.

IP XL PEMS PROJECT SIGNATORIES:

Mindy Lubber, Acting Regional Administrator, U.S. EPA

Date Signed

(), title, ME DEP

Date Signed

(), title, Town of Jay

Date Signed

(), title, International Paper

Date Signed