PROJECT XL -- FINAL PROJECT AGREEMENT LUCENT TECHNOLOGIES INC. - MICROELECTRONICS GROUP

August 19, 1998

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I. Project XL

Project XL is a pilot program to test alternative approaches to environmental protection where project sponsors may be granted regulatory flexibility in return for demonstrated superior environmental performance, the on-going involvement of stakeholders and achievement of other XL criteria (see Section IIC).

II. Microelectronics Project Description

A. Purpose

The Lucent Technologies Microelectronics Group (Microelectronics) is a market leader in several product areas critical to communications applications:

- Standard Cell Asynchronous Integrated Circuits;
- Videoconferencing Integrated Circuits; and,
- Single-Mode Fiber Optic components for communications.

Microelectronics maintains a presence in the form of research, design, manufacturing and sales offices in over fifteen countries.

This Final Project Agreement (FPA or Agreement) defines a five year Project to test whether, over time, a high-quality environmental management system EMS can generate a single governing environmental document for Microelectronics which delivers superior environmental performance, allows environmental managers and the public a clearer, better understanding of Microelectronics' environmental management program, and achieves a more efficient interaction with environmental policy than the traditional environmental permitting system affords. It is intended that this innovative approach will retain and enhance important statutory requirements such as public review, accountability and enforcement. The project will explore whether and to what extent it may be appropriate to use the EMS as a basis for regulatory flexibility regarding permitting or other requirements. The EMS includes a single matrix that defines, clearly and understandably, all:

- Environmental requirements;

- Requirements of the EMS, including EMS Objectives and Targets;
- Past environmental performance;
- Regulatory flexibilities;
- Superior performance commitments;
- Continuous improvement mechanisms, including pollution prevention and Design for the Environment;
- Accountability mechanisms;
- Special indicators.

This approach is intended to integrate environmental protection and sustainability goals with business goals, procedures and management structures in a way that enhances environmental progress as competitiveness is improved.

B. Summary of Project Objectives

This Project has six specific objectives:

- to evaluate whether the ongoing operation of a high-quality EMS, third party certified to the International Organization for Standardization's (ISO) 14001 EMS standard, can achieve Superior Environmental Performance in both regulated and non-regulated areas and drive environmental management toward continuous improvement;
- to identify in practice and demonstrate by example the characteristics of a high-quality environmental management system that achieves superior performance;
- to integrate, over time, agencies into the EMS process of identifying Significant Environmental Aspects, and setting Objectives and Targets, identifying models for the most efficient use of agency staff resources;
- to test various concepts (see Exhibit C) and develop and demonstrate indicators to measure the performance of a high-quality EMS over the long term;
- to identify and implement regulatory flexibility demonstration projects which arise in the normal course of the operation of a high-quality EMS, and which will lead to environmental performance that is superior to what would be achieved through compliance with current or reasonably anticipated future regulations and will model environmental regulatory approaches which are "cleaner, cheaper and smarter"; and,

- to identify over the five year period of this Agreement whether and how a high-quality EMS can be the basis for an integrated approach, embodied in a single document, governing environmental management in all media at Microelectronics. In addition, this pilot project will help determine whether use of a high-quality EMS will create a more efficient, more transparent, more easily understandable, and more flexible system which not only meets the requirements of existing statutes and regulations but achieves superior environmental performance.

C. XL Criteria and Characteristics of a High-quality Environmental Management System

In Federal Register notices in 1995 and 1997, the USEPA defined and detailed specific criteria to guide XL projects. In summary, those criteria require from XL projects:

1. Superior environmental performance
2. Flexibility within the regulatory systems, resulting in cost savings and paperwork reduction
3. Active stakeholder involvement in project development and implementation
4. Innovation/Multi-Media Pollution Prevention
5. Transferability
6. Feasibility
7. Monitoring, reporting, accountability and evaluation
8. No shifting of risk burden/consistency with Executive Order 12898 on Environmental Justice/must protect worker safety and ensure that no one is subjected to unjust or disproportionate environmental impacts

High-quality environmental management systems should have the capability to meet or exceed XL criteria. This XL Project defines and tests a range of characteristics that should indicate an EMS that is of high-quality. It is this quality, and the resulting performance, upon which this XL Project is basing the flexibilities described in this umbrella FPA and in the site-specific addenda. Based upon the first 18 months of performance of the Microelectronics EMS, and the knowledge gained from other EMS-based projects around the nation, Signatories to this FPA believe that a high-quality EMS is one which:

- Actively involves stakeholders in the identification of Significant Environmental Aspects and the subsequent monitoring of progress toward Objectives and Targets. This is conducted in an open, public, consensus-based process.

- Identifies and manages a full range of Significant Environmental Aspects in a holistic manner considering all environmental effects regardless of whether they are specifically regulated.

- Focuses beyond compliance and addresses regulated and non-regulated activities through resource conservation, pollution prevention and Design for the Environment.

- Is sustainable by the business, while continuously improving and seeking the highest environmental goals independent of regulatory requirements, therefore moving beyond compliance.

- Ensures quicker compliance (though "beyond compliance", not regulatory compliance, is its primary focus) with all applicable laws, regulations, permits, company policies and other requirements to which the company subscribes (e.g., international standards) while simultaneously establishing integrated self-monitoring, systematic and expeditious corrective action processes geared to returning to full compliance independent of regulatory requirements and enforcement procedures.

- Is itself (the process) transparent and results in better, more efficient, simpler to understand, more easily accessible, consolidated information for managers, regulators, employees and the public on environmental performance.

- Has the full and ongoing commitment of senior management through the integration of environmental considerations into normal business operations, management expectations and business philosophies.

- Creates measurable Objectives and Targets and systems to track the performance against these Objectives and Targets.

- Is audited by an external third party.

- Strives to minimize risk and to avoid any shifting of risk burden.

At the heart of a high-quality EMS are three fundamental building blocks, which allow an EMS to be applied to a single facility or an entire company:

- **Environmental "Aspects"**, are the activities, substances and processes which are regulated and/or which can impact the environment (even though they may not be specifically regulated). All environmental aspects of the business are studied to determine those that are considered "Significant Environmental Aspects". All regulated activities, substances or processes are considered significant. The EMS demands that all Significant Environmental Aspects be managed by setting performance objectives in one of three modes: "maintain progress", "shall improve performance", or "should improve performance". A high-quality EMS requires that management of Significant Environmental

Aspects shall be performed with the concept of continual improvement applied to the objective setting process.

- **Environmental "Objectives"**, are the performance goals for all Significant Environmental Aspects. EMS "objectives" in a high-quality EMS cover all activities whether or not those activities are specifically regulated.

- **"Targets"** which are the programs that are developed and implemented by the EMS to achieve the "objectives" over time.

Microelectronics has developed and is managing its EMS to exhibit these characteristics as is described in Exhibit A. It is envisioned that over the period of this FPA, the environmental aspects, Objectives and Targets, which encompass both regulated and non-regulated activities and substances may become the basis for the single document that governs environmental management at Microelectronics.

D. Implementing Elements of this Project

This Project will be implemented by two mechanisms. The first is this "umbrella" FPA, which establishes the overarching goals of the Project, identifies concepts to be potentially tested over the term of the FPA, and provides broad tools, particularly the management matrix (see IIF), that can be used to implement the purpose of this Project.

Use of an umbrella or overarching FPA helps ensure consistency of implementation across media and, ultimately, across facilities, and provides the vehicle for eventually integrating the entire Microelectronics Group. This FPA applies to all US-based Microelectronics facilities.

The second mechanism is the "site-specific" addenda, which would govern implementation of this XL project at individual facilities. These addenda would identify site-specific flexibilities and Superior Environmental Performance based initially upon a specific subset of the facility's Significant Environmental Aspects and, hopefully within the five year term of this project, would lead to full coverage of all significant aspects found at the facility. For facilities to be part of this XL demonstration Project, a site-specific addendum developed by Microelectronics, USEPA, the facility and the affected State, in conjunction with the facility's Local Environmental Advisory Group (LEAG) would be required. Each of Microelectronics' major manufacturing facilities has established a LEAG which is composed of local stakeholders including environmental organizations, community groups, employees and other interested citizens. The LEAGs provide Microelectronics with input from community organizations, employees and the general public.

The first site which is developing a site-specific addendum is Microelectronics' Allentown, Pennsylvania, facility, which manufactures silicon chips. The Allentown site-

specific addendum will delineate the subset of Significant Environmental Aspects that will initially define the demonstration project for that facility, including all site-specific flexibilities and expected superior performance. As the project builds upon initial successes , it is expected that all Significant Environmental Aspects will be incorporated into the Allentown addendum. Additionally, as initial successes are generated at Allentown, the Project Partners expect that site-specific addenda will also be developed at other Microelectronics facilities within the United States, which are currently located in:

1. Breinigsville, Pennsylvania
2. Reading, Pennsylvania
3. Orlando, Florida

E. Phasing Implementation

1. Media and Facilities

This program is intended to lead to an environmental management approach that is comprehensive, multi-media, and based upon the Significant Environmental Aspects of the Microelectronics business. It also begins to identify and test an entirely new interface, one which will require a commitment of time and resources, among regulators, stakeholders and a company with a high-quality EMS. A key part of the program is to determine how to better use each human resource involved in a regulatory process. This would include development of the most efficient models for use of regulator time as well as company and community leader time, balancing time and staffing constraints with the need for effective input into EMS Objectives & Targets. Therefore, full implementation will be phased in over a period of time, beginning at one facility and encompassing two or three Significant Environmental Aspects and eventually adding all Significant Environmental Aspects and facilities as the Project progresses. This is depicted in the chart on the following page.

Microelectronics Facilities under the EMS

Increasing Comprehensive Multi-Media and External Aspect Integration

Significant Environmental Aspect*		Allentown**	Reading	Breinigsville	Orlando
Water Usage		X			
Waste Water Discharge		X			
Wastewater Treatment Sludge		X			
Air Emissions		X			
Energy Usage					
Chemical Consumption					
Raw Material Consumption					
Land Use					
Products					
Supplies/Supplier					
On Site Contractors					

Business-wide Integration

*All Significant Environmental Aspects identified through the EMS would be listed in this column, whether or not regulated. The site-specific addenda would include full detail on the parameters under each media through the governing matrix (see Section IIF).
** Initially, at least, water and waste water, sludge and air emissions would be addressed, and then other media would be integrated as soon as possible.

2. Regulator Participation in the EMS

The Signatories to this Agreement believe that a high-quality EMS has the potential to serve as a vehicle for an entirely new interface among regulators and regulated entities that can more efficiently and constructively integrate the functions of federal and state environmental governance with traditional business management systems. While the development of such new relationships is not essential to the purpose of this FPA, which is testing whether an EMS can generate a single governing environmental document for a company, based upon management of all its Significant Environmental Aspects , the Signatories firmly believe that integration of regulator participation into the normal operation of an EMS can enhance efficiency and improve environmental progress.

Characteristics of the ideal relationships raised during the FPA discussions include:

- Joint participation in the continual improvement of the EMS both at the facility and business-wide levels.

- Participation by regulators in those parts of the EMS where such participation is most efficient, such as in the identification of environmental aspects and the establishment of EMS objectives, targets and long term strategies.

- Ability to develop creative mechanisms for both regulators and the regulated community that further encourage not just immediate systematic corrective action for discovered issues, but enhance systems and incentives to seek out current problems or past inadequacies.

- Ability to make streamlined decisions about flexibilities arising during EMS discussions regarding setting Objectives intended to manage Significant Environmental Aspects.

- Integration of the best environmental science available from respected sources such as USEPA into the highest quality product design.

The Signatories to this Agreement recognize that the transition to a model integrating regulatory participation into the daily workings of a corporate EMS is a complex task which requires that entirely new relationships between regulators and the regulated entity, and may require the exploration of potentially new long term alternative models for traditional regulatory functions. The Signatories understand this necessitates a phased approach to developing an integrated participation model and believe this Pilot Project provides the opportunity to move

steadily and deliberately toward that end. The Signatories agree to work together over the term of the FPA to attempt to create a new model for relationships between regulated entities and regulators using a high-quality EMS as the vehicle.

The Project Partners agree that several early model changes are possible, such as:

- The opportunity for regulators to provide input for Microelectronics consideration regarding management of the specific Significant Environmental Aspects chosen for the demonstration projects through the setting of Targets and Objectives under the EMS; and, potentially this role could be expanded toward management of all Significant Environmental Aspects at a facility to move toward a business-wide EMS partnership.

- Joint review of progress against EMS stated Objectives and Targets relevant to the demonstration projects.

- Discussion of possible additional XL demonstration projects, areas of Superior Environmental Performance and flexibilities associated with Significant Environmental Aspects that may emerge in the future which cut across more than one facility.

These and additional opportunities need to be discussed within the EMS context and be consistent with its normal cycle (see Appendix A). Therefore, USEPA, Microelectronics and PADEP agree to meet with Microelectronics representatives at the first EMS Environmental Action Team session after signing of this FPA to begin reviewing barriers and begin the discussion of new regulatory relationships, including the formation of a policy committee to facilitate efficient regulator input. At that time, process options for creating a new model will begin to be identified and reviewed. This process will be repeated annually throughout the duration of this XL Project to identify and test new concepts and determine how new regulator/industry relationships based upon a high-quality EMS and its performance can be crafted and implemented as interaction within the EMS matures.

F. The Governing EMS Management Matrix

To facilitate understanding and accessibility for all stakeholders of the critical information regarding Significant environmental Aspects and their corresponding Objectives and Targets, as well as to facilitate performance measurement and accountability, it is proposed that this and other relevant information be consolidated into one matrix, which eventually would become the heart of Microelectronics' governing environmental document. This matrix would also be the means for transitioning from a medium specific regulatory system, governed

by individual permits to a holistic multi-media management system. Such a system would be based upon use of the Significant Environmental Aspects, and the corresponding Objectives and Targets of a high-quality EMS, which encompass both regulated and non-regulated activities and be based upon a single governing matrix that would become a permit replacing media-specific permits.

Over the five year period of this FPA, it is intended that site-specific matrices would be developed and refined potentially for all US-based Microelectronics facilities, as the basis for the site-specific addenda, eventually culminating in a single business-wide matrix based on the business-wide EMS. However, as a starting point, it is proposed that the matrix be developed first for Microelectronics' facility at Allentown, Pennsylvania. To facilitate this effort, and the integration of other facilities as they develop site-specific addenda, an initial view of the proposed matrix is provided in this FPA. As refinements are identified in site-specific tests, the matrix of this umbrella FPA also would be revised and improved to facilitate transferability of the Project concepts across Microelectronics facilities. Eventually, facility-specific matrices, and other inputs, could be used to create a corporate-wide matrix.

Understanding that governing matrices (both site-specific and corporate) likely would be updated annually, significant changes and/or new flexibilities would be reported to and reviewed with the public through the LEAGs annually according to the EMS schedule and the reporting procedures defined in Section V.

Following the initial matrix design, presented below, are relevant definitions of and discussions regarding its specific columns. Also included is a single example related to a hypothetical facility. This example is intended for illustrative purposes only. All programs or flexibilities governing Allentown, or any other facility, are defined only in the site-specific addendum for that facility.

Lucent Microelectronics
EMS-Based Matrix
Part A
Note: All Entries are Fictitious and for the Illustrative Purposes Only

Location/Media	Legal Requirement	Actual Performance	EMS Requirements/ Stretch Objectives	Performance Floor	Other Limits
Environmental Aspect					
"Smithville" Facility					
VOC	25 tons+ Title V; 15 tons+ State permit	'94-98tpy '95-87tpy '96-65tpy '97-63tpy (est.)	Cut VOC emissions to <25tpy	N/A	Reduce HAPs by 90% over three years

Lucent Microelectronics
EMS-Based Matrix
Part B
Note: All Entries are Fictitious and for the Illustrative Purposes Only

Location/Media	Reporting/ Monitoring Requirements	Other Accountability	Flexibilities	Legal Mechanisms
Environmental Aspect				
"Smithville" Facility				
VOC (cont.)	Monthly emissions reported to State and Federal agencies	Devise P2 metric; report all emissions via single report to all community and regulatory agencies	Plant Site Emission Limit (PSEL) for ten years	Reported emissions compared to EMS and legal thresholds

Lucent Microelectronics
EMS-Based Matrix
Part A
Note: All Entries are Fictitious and for the Illustrative Purposes Only

Location/Media	Legal Requirement	Actual Performance	EMS Requirements/ Stretch Objectives	Performance Floor	Other Limits
Environmental Aspect					
"Smithville" Facility					
CO_2	No regulatory limits	'94-305tpy '95-398tpy '96-412tpy '97-350tpy (est.)	"Should Improve" to cut emissions to 1990 levels over five years	N/A	N/A

Lucent Microelectronics
EMS-Based Matrix
Part B
Note: All Entries are Fictitious and for the Illustrative Purposes Only

Location/Media	Reporting/ Monitoring Requirements	Other Accountability	Flexibilities	Legal Mechanisms
Environmental Aspect				
"Smithville" Facility				
CO_2 (cont.)	N/A	Devise P2 metric; report all emissions via single report to all community and regulatory agencies	Plant Site Emission Limit (PSEL) for ten years	Reported emissions compared to EMS and legal thresholds

Lucent Microelectronics
EMS-Based Matrix
Part A
Note: All Entries are Fictitious and for the Illustrative Purposes Only

Location/Media	Legal Requirement	Actual Performance	EMS Requirements/ Stretch Objectives	Performance Floor	Other Limits
Environmental Aspect					
"Smithville" Facility					
NOx	NOx RACT	'94-255tpy '95-159tpy '96-140tpy '97-147tpy (est.)	"May Maintain" at current levels; implement NOx trading program	Regional NOx CAP	N/A

Lucent Microelectronics
EMS-Based Matrix
Part B
Note: All Entries are Fictitious and for the Illustrative Purposes Only

Location/Media	Reporting/ Monitoring Requirements	Other Accountability	Flexibilities	Legal Mechanisms
Environmental Aspect				
"Smithville" Facility				
NOx (cont.)	Continuous Emissions Monitors (CEM) to State and Federal agencies	Devise P2 metric; report all emissions via single report to all community and regulatory agencies	Plant Site Emission Limit (PSEL) for ten years	Reported emissions compared to EMS and legal thresholds

MATRIX DEFINITIONS:

Column One (location/media): Identifies the location and facility ID number covered by the item (a specific facility or the entire Microelectronics Group) and then each row relates to a specific medium or activity (the significant environmental aspect from the EMS) at that facility.

Column Two (legal requirement): Identifies any specific legal requirement such as an NPDES or air limit.

Column Three (actual performance): Identifies the actual performance at the facility.

Column Four (EMS requirements/stretch objectives): Identifies all objectives developed by the EMS, from those related to maintaining environmental gains, or ensuring basic compliance to wholly new programs (e.g., pollution prevention, Design for the Environment) for regulated or non-regulated media or activities (Significant Environmental Aspects) that are designed to achieve superior performance. This column includes all voluntary commitments designed to meet continuous improvement and Superior Environmental Performance goals.

Column Five (performance floor): Identifies any required performance floors which cannot be exceeded, particularly in the case of flexibilities. These may be scientific, operational or risk-based floors.

Column Six (other limits): Identifies other limits that may form the basis for an EMS target or objective on a non-regulated aspect or one for which a flexibility has been established. An example may be a negotiated objective or limit that may be more strict than a performance floor, but which is not enforceable.

Column Seven (reporting/monitoring requirements): Identifies applicable reporting and monitoring requirements, if any. This column additionally would identify test methods where necessary.

Column Eight (other accountability/enforceability): Identifies, where possible, more efficient, transparent and understandable accountability/enforceability and reporting regimens, including any new indicators developed by the Microelectronics Project.

Column Nine (flexibilities): Identifies any flexibilities associated with the significant environmental aspect and granted through Project XL or other regulatory innovation programs.

Column Ten (legal mechanism): Identifies how the specific row of the matrix satisfies legal requirements identified in column one. This column also would contain a

description of the vehicle (e.g., site-specific rule making) which would allow the flexibilities (if any) defined in Column Nine to be implemented.

G. Governance of Flexibilities

Microelectronics will implement site-specific regulatory flexibility demonstration projects based on Microelectronics' EMS and the matrix identified above. Opportunities to find regulatory flexibilities are expected to be identified on an on-going basis and will facilitate the achievement of the Superior Environmental Performance resulting from Objectives and Targets set through normal operations of the EMS. As Objectives and Targets are established, regulators, Microelectronics and the LEAGs will each identify regulatory barriers and regulatory flexibility opportunities that may assist in meeting the Project XL criteria, including but not limited to specific environmental benefits tied to the regulatory flexibility through the operation of its EMS.

Microelectronics and its Project XL Partners will develop new flexibility proposals in accordance with the EMS process and schedule for identifying Objectives and Targets. In particular, each site-specific demonstration project will involve seeking and responding to input from the facility's LEAG. In each instance, the specific regulatory flexibility project will be integrated into the EMS, including the monitoring and measurement of Superior Environmental Performance criteria that have been developed through the EMS. The specific terms and conditions for each demonstration project, including baselines and indicators of performance and progress, will be set out in the facility's EMS-based Management Matrix as provided in site-specific addenda to this FPA. Each matrix is developed in conjunction with and reviewed by the LEAG's through their public and noticed meeting process.

H. Concepts to be Tested/Lessons Learned

This FPA represents a bold experiment designed to test entirely new concepts in and models of environmental governance. In such an experiment, ensuring that the lessons learned are documented, evaluated and implemented on a broader scale where successful, is particularly important. In Part B of this section, several overarching project goals were identified, which included testing whether a matrix reflecting the Objectives and Targets of a high-quality EMS could be used as the single document governing environmental management at a company. To move toward such a goal, as well as to test the many sub-elements necessary to make the ultimate determination of whether the objectives were successfully met, the Signatories agree to work together during the term of this FPA toward specifically testing various concepts and documenting various lessons. While the list of items tested will evolve with the demonstration projects and general implementation of this FPA, a list of concepts to be tested, and a schedule that generally indicates when the Microelectronics EMS and this XL project will be capable of initiating and conducting such tests is provided in Appendix C. The testing of some of these concepts may require the development of

new indicators. Such indicators will be discussed in the policy committee (see Section IIE2) as required.

III. Signatories to this Umbrella FPA

This umbrella Final Project Agreement (FPA or Agreement) is entered into between and among the Microelectronics Group of Lucent Technologies (Microelectronics) and the United States Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Protection (PADEP) and the Environmental Law Institute (ELI) (collectively, the Signatories). For a site-specific addendum, the state in which the facility hosting the demonstration project is located would be the state Signatory for that addendum.

IV. Site-Specific Addenda

A. Introduction

This umbrella FPA provides an overarching framework to govern the XL Project across Microelectronics' US-based facilities. As individual facilities identify site-specific Objectives and Targets, flexibilities may become apparent that would expedite or make more efficient the attainment of possible environmental benefits as well as result in cost savings and efficiencies. These flexibilities must initially be implemented and tested at individual facilities as the implementation of this Project is phased in. Therefore, each facility requesting flexibility under the XL Project will develop a site-specific addendum to address desirable flexibilities and associated superior performance. This FPA recognizes that the development and implementation of this high-quality EMS under Project XL over the past 18 months has created Superior Environmental Performance achievements and should continue to do so with or without XL. The flexibilities generated will enhance the ability of the EMS to speed or otherwise enhance Superior Environmental Performance. Because the greatest Superior Environmental Performance reward of an EMS is the ongoing creation of SEP as part of normal business practices, with or without flexibilities, it is recognized that Superior Environmental Performance created by the EMS may or may not relate directly to a flexibility granted.

While this umbrella FPA contains Microelectronics' commitment to meet the XL criteria and the characteristics of a high-quality EMS, the site-specific addenda will describe how each facility demonstration project specifically meets those criteria and characteristics. In each instance, the site-specific flexibility project will be tied to the EMS, its information management system, its specific Superior Environmental Performance criteria that have been developed for the project through the EMS process, and to the general provisions of the umbrella FPA.

B. Process for Developing Site-Specific Addenda

The site-specific addenda will be developed in phases for each facility where Microelectronics, USEPA and the State in which the facility is located agree to pursue flexibility:

Phase 1 Review and agree on facility-level EMS superior performance criteria and flexibility as established by EMS Objectives and Targets, with LEAG involvement, as the basis for site-specific addendum.

Phase 2 Agreement on site-specific demonstration projects and any specific needs (including identifying specific regulations, policies, guidance or processes from which the facility plans to deviate and alternative requirements, Superior Environmental Performance opportunities). This phase includes developing site-specific addendum that describes in detail the flexibility project, including the key elements of, the performance metrics for and the legal mechanisms necessary to implement the project.

Phase 3 Site-specific flexibility project addendum finalized and circulated for signature based upon the public notice and comment guidelines of Project XL.

Phase 4 Annual review of the site-specific projects through the existing EMS management review process.

Phase 5 Determine the transferability of site-specific flexibility projects to other Microelectronics facilities, or to a broader set of the regulated community.

V. Reporting/Accountability

While current requirements remain unless altered by specific flexibilities, in order to monitor the success of this FPA in meeting its ultimate goals, the Project Partners will jointly establish plans for determining each of the Party's progress toward the goals and tasks assigned them.

In order to monitor progress of facility-specific projects, Microelectronics will establish for each site-specific addendum, and as indicated in the EMS-Based Matrix, "Accountability Action Plans." Under these plans, Microelectronics will proceed as follows:

Facilities will provide quarterly reports and an annual summary report on the progress their demonstration project is making in attaining their Objectives and Targets relative to the demonstration projects as noted in the EMS-Based Matrix for each facility. If applicable, these reports may provide the reasons for

Microelectronics' potential inability to attain one or more of these commitments and any corrective actions taken.

Facilities undertaking demonstration projects will continue their close association with the public by holding, with the involvement of appropriate state regulators and EPA, LEAG meetings to provide an open forum for discussion of the quarterly reports, and will provide opportunity for public input and suggestions on how to improve Microelectronics' environmental performance. All significant changes in the governing, matrix as well as new flexibilities, are developed in conjunction with the LEAG's. All LEAG meetings are public and noticed in the local media. Microelectronics will convene the Signatories in April, 2001 to perform an in-depth evaluation of the Project Partners' progress towards attainment of the EMS Objectives and Targets associated with the demonstration projects and the goals of the umbrella FPA. If, after taking into account public input from the affected LEAG(s) and the necessity for the project as a whole to achieve overall superior performance, all the Signatories determine that the progress on one or more of the stretch objectives contributing to the superior performance sustaining granted flexibilities is, after good faith efforts, insufficient to create an expectation that such stretch objective(s) will be attained by December 31, 2002, then the commitment(s) and/or their deadline(s) may be re-negotiated in good faith by the Signatories.

Microelectronics will make publicly available a report on the outcome of the April, 2001 meeting.

In addition to the above measures that are designed to foster public accountability, Microelectronics is committed to assisting regulatory agencies in implementing projects similar to the site-specific projects. In particular:

Building upon the expected success from implementation of the site-specific projects, Microelectronics anticipates working with the regulatory agencies and the community to apply, where appropriate, the innovative environmental approaches in the site-specific addenda to other companies as deemed feasible and consistent with the needs of Microelectronics' business and the mission of the regulatory agencies to protect the environment.

VI. Transferability

Microelectronics and the other Signatories, along with representatives from the relevant LEAGs, will conduct annual reviews of the Microelectronics XL Project to determine the transferability of site-specific regulatory flexibility demonstration projects resulting in Superior Environmental Performance or significant efficiencies not affecting environmental performance to other Microelectronics facilities and possibly to other Lucent facilities, as appropriate.

Microelectronics and the affected Signatories may agree to additional flexibility demonstration projects, including a schedule for the identification and implementation of such projects.

VII. Miscellaneous Provisions

A. Effect

The Agreement is not intended to create legal rights or obligations and is not a contract, or a regulatory action such as a permit or rule, although some provisions in this Agreement may be implemented through a separate [rule/permit] which will be legally enforceable. This Agreement does not give any of the parties a right to sue other parties for any alleged failure to implement its terms, either to complete implementation or to recover damages.

This umbrella FPA is intended to be a joint statement of the parties' plans and intentions with regard to the project. It is intended to clearly state the plans of the various participants and to represent the firm commitment of each participant to carry out the project. In addition, site-specific addenda will be added to this umbrella Agreement as individual facilities develop demonstration projects.

Microelectronics will provide a copy of this FPA and non-proprietary documentation relevant to this Project and its implementation to any contractor retained to perform any significant activity required by a regulatory flexibility project addendum to this FPA and will make available these same documents to stakeholders.

B. Statement of Unaffected Authorities

Nothing in this Agreement limits the authority of EPA to: (1) undertake any civil or criminal enforcement against any person including parties to the Agreement; or (2) undertake actions in response to conditions which present an imminent and substantial endangerment to public health or welfare, or to the environment. Nothing in this Agreement limits the authority of PADEP to: (1) undertake any civil or criminal enforcement authority against any person including parties to the Agreement; or (2) undertake actions in response to conditions which present an imminent and substantial endangerment to public health or welfare, or to the environment. Nothing in this Agreement is intended to limit Microelectronics' right to administrative or judicial appeal or review of [the legal mechanisms used to implement the project, or modification or termination of those mechanisms] in accordance with the normal procedures for such review.

Nothing in this FPA shall limit Microelectronics' or any Signatory's right to propose other regulatory flexibility demonstration projects with any Signatory or any other federal or state regulatory authority outside of the context of this FPA or the scope of this Project.

C. Severability and Implementing Mechanisms

In case any one or more of the implementing mechanisms identified in this FPA shall be invalid, illegal or unenforceable in any respect under law, the validity, legality and enforceability of the remaining implementing mechanisms shall remain valid and enforceable subject to the review of the signatories to determine whether the Project should be continued or modified.

D. Authority to Sign

Each individual executing this FPA on behalf of his/her respective Signatory represents that he/she is duly authorized to execute this FPA on behalf of such Signatory.

E. Modification

This FPA or specific addenda may be modified upon agreement of the appropriate Signatories, after involvement of appropriate stakeholders. If the FPA or an addenda is substantially modified, public notice and an opportunity to comment on the modification will be provided.

F. Effective Date and Termination of FPA

1. Effective Date

This FPA will become effective on the date on which all Signatories have signed the umbrella FPA.

2. Termination

Because this FPA is not enforceable, no party may be legally compelled to continue with the project against its wishes. However, it is the desire of the parties for the FPA to remain in effect at least until April 30, 2003, and to 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. To ensure an orderly transition, if a party wishes to withdraw, or wishes to have the Agreement terminated, the parties intend for written notice to be provided to all the other parties and stakeholders. Termination or withdrawal will occur 30 days following receipt of such notice, unless the parties agree that a different deadline is appropriate either to attempt to resolve any dispute or to achieve an orderly transition.

In the event that this FPA is terminated prior to April 30, 2003, Microelectronics and the Signatories agree to document the Project experiences as of the date of termination. Nothing in this FPA shall preclude the continuation of a specific regulatory flexibility project beyond the date of FPA termination; provided, however, that the continuation of such project is agreed to in site-specific addenda by Microelectronics and each affected Signatory.

Procedures for termination of specific flexibilities associated with facility demonstration projects will be included in the governing site-specific addendum.

G. Resolution of Disputes

To ensure orderly implementation of the project and minimize disruption if disagreements occur, the parties expect to use the following process for dispute resolution. Adherence to this procedure is non-binding but will be the anticipated means of addressing disputes. Any dispute which arises concerning the commitments of the parties, the interpretation or meaning of the FPA, or the implementation of specific terms, will, in the first instance, be the subject of informal negotiations. Any party may initiate informal negotiations by notifying all the other parties, in writing, setting forth the matter for dispute. If the dispute cannot be resolved by the parties within 30 days of receipt of such notice, one or more of the disputants may invoke non-binding mediation by setting forth the nature of the dispute, with a proposal for its resolution, in a letter submitted to the other Signatories. Any party to the dispute may request an informal mediation meeting and may suggest a mediator for consideration by the other Signatories. The disputants may request an opinion from the Regional Administrator, as appropriate, in lieu of or in addition to the mediation meeting. Any opinion, written or oral, by the Regional Administrator [or Commissioner] will be non-binding and non-enforceable and nothing in this section shall be construed as altering any signatory's right to request termination, or to give rise to any right of judicial review of the opinion.

H. Events Preventing Project Implementation

As part of the flexibilities under project XL, the site-specific addenda may identify some regulatory requirements that will be changed and identify a legal mechanism for identifying that change. In the event of termination for any reason of the site-specific regulatory flexibility element, the site-specific addendum or the entire XL Project, the transition back to relevant regulatory requirements will be fully governed by the appropriate legal mechanism for providing site-specific relief.

I. Confidential Business Information

In accordance with 40 C.F.R. part 2, subpart B (1995) or equivalent State laws and regulations , Microelectronics' may claim certain information disclosed in connection with this Project as "Confidential Business Information" ("CBI") or "Trade Secrets." subject to the protections of those laws and regulations so long as the information so designated falls within the scope of those laws and regulations. Microelectronics reserves the right to claim certain disclosure made in connection with this Project as CBI within forty-eight (48) hours of the initial disclosure. Microelectronics understands that CBI protections will not apply to such disclosures until a CBI claim is made and

that the Signatories to this FPA are under no obligation to protect such disclosures as CBI prior to their claim by Microelectronics as CBI.

Information that is not claimed to be CBI, or claimed to be CBI but determined by EPA or DEP not to be CBI, is releasable to requesters under the applicable "sunshine acts," "freedom of information acts," and "right-to-know acts" including but not limited to the Freedom of Information Act, 5 U.S.C. §§_____ et. seq., and the Pennsylvania Right-to-Know Law, 65 Pa.C.S. §66.2, as appropriate.

Any Signatory who fails to comply with applicable federal or State laws and regulations regarding the protection of CBI may be subject to the penalties set out in such laws and regulations.

Pennsylvania's environmental statutes and regulations include confidentiality sections. Microelectronics will be afforded those protections.

VIII. Enforcement and Legal Accountability

Certain requirements referenced in some of the site-specific addenda, but not changed under the addenda, are enforceable under the appropriate implementing statutes and regulations. Such requirements will continue to be fully enforceable in accordance with the terms of relevant statutory authorities. Where the addenda describe changes to be made to regulatory requirements, those changes will be made in accordance with EPA's regulatory procedures. Once the changes are adopted, the new requirements will be fully enforceable.

The addenda may also provide for EMS stretch objectives which are not legal requirements but are included in this Project and the facility-specific addenda to illustrate the broad reach of the EMS to encourage superior performance for regulated activities as well as non-regulated activities. Therefore, Microelectronics is not legally obligated to implement these commitments and they are not enforceable under any environmental statute or regulation. Nonetheless, Microelectronics agrees to make every effort to attain the stretch objectives.

The Parties and the public stakeholders who assisted in developing this FPA recognize that the stretch objectives are aggressive in nature, that it is difficult for Microelectronics to predict performance and that potential events outside of Microelectronics' control might impair the Company's ability to meet those commitments.

Lucent's participation in this XL project, including any meetings or other contacts with EPA staff pursuant to the project, does not preclude application of EPA's policy on "Incentives for Self Policing: Discovery, Disclosure, Correction and Prevention of Vioaltions" 60 Fed Reg 66706 (Dec. 22, 1995)("the audit policy"), provided Lucent can

demonstrate that all of the conditions in that policy are satisfied. Based on EPA's review of the high-quality EMS described by the FPA that would meet or exceed XL project criteria, the discovery of potential violations through the operation of Microelectronics' EMS would satisfy the audit policy's systematic discovery conditions, Section D.1. If during an EMS/XL meeting between Lucent and EPA, the participants for the first time identify violations that may have occurred, such information will not be considered to have been discovered by EPA and thereby will not preclude satisfaction of the independent discovery criteria, Section D.4., in the audit policy. Provided the potential violations discovered in such meetings are disclosed in writing to EPA within 10 days of discover (or such shorter period provided by law) and the audit policy's other conditions are met, Lucent would be eligible for waiver of all gravity based penalties regardless of any enforcement response EPA may take. Due to the nature of discovery, disclosure and certification requirements imposed by Title V of the Clean Air Act, Lucent would appear not to be able to meet the voluntary discovery condition, Section D.2., of the policy for potential violations in those areas. However, Lucent's participation in this XL project may be considered as a mitigation factor under existing relevant EPA penalty policies if enforcement actions are taken for violations that cannot be mitigated under EPA's audit policy. Lucent's actions under the high-quality EMS described by the FPA will be evaluated by EPA, along with other relevant activities, when identifying any mitigating factors under other existing relevant Agency penalty mitigation policies.

Additionally, when appropriate, Pennsylvania's "Policy to Encourage Voluntary Compliance by Means of Environmental Compliance Audits and the Implementation of Compliance Management Systems", Document No. 012-0840-001 will apply to disclosures made by Lucent through Project XL to potential enforcement actions by PADEP. As additional States become involved, the audit policies of those states should apply at a minimum to potential enforcement actions by those states.

Additionally, USEPA's Environmental Leadership Program is expected to define new models for inspection, reporting and correcting noncompliance and enforcement response associated with environmental leaders who voluntarily disclose potential violations. USEPA is currently preparing guidelines for this program. Once the Federal Register Notice and Public Comment procedures are complete, the guidelines will become final. Once this occurs, these new models may become applicable to this XL Project.

IX. Definitions

For the purposes of this FPA, the following definitions apply:

Continual Improvement

"Continual improvement" means the process of enhancing the EMS to achieve improvements in overall environmental performance in line with Microelectronics' environmental policy.

Consensus

"Consensus" will be considered reached when Microelectronics and all relevant Signatories (i.e., those Signatories affected by a particular decision or determination) can accept or support a particular position, even though that position may not be their first choice. "Consensus" should be documented in writing.

In determining whether consensus has been reached, Microelectronics and each other Signatory are each allowed one "vote." EPA headquarters and its regional offices are considered to be one Signatory for the purpose of determining consensus. Similarly, DEP headquarters and its regional offices are considered to be one Signatory for the purpose of determining consensus. Similarly, Microelectronics' corporate and participating facilities are considered to be one Signatory for the purpose of determining consensus.

Environment

The "environment" means the surroundings in which Microelectronics operates, including air, water, land, natural resources, flora, fauna, humans and their interrelations.

Environmental Aspect/Significant Environmental Aspect

An "environmental aspect" means an element of Microelectronics' activities, products or services which can interact with the environment. A "significant environmental aspect" is a regulated substance, activity or process, or one which has or can have a significant environmental impact, even if it is not specifically regulated.

Environmental Impact

"Environmental impact" means any change to the environment, whether adverse or beneficial, wholly or partially resulting from Microelectronics' activities, products or services.

Environmental Objective

An "environmental objective" means an overall environmental goal, arising from the environmental policy, that Microelectronics sets itself to achieve and that is

quantified where practicable. These objectives may embody “stretch goals” intended to drive continual improvement beyond what is presently required or what is predictable.

Environmental Performance

"Environmental performance" means measurable results of the EMS, related to Microelectronics' management of its environmental aspects, based on its environmental policy, Objectives and Targets.

Environmental Target

An "environmental target" means a detailed performance requirement, quantified where practicable, applicable to Microelectronics or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.

Stakeholders

The term "stakeholder[s]" means national, state and local community and environmental organizations and agencies Microelectronics' employees, regulators, industry groups and members of the general public expressing interest.

Superior Environmental Performance

Notwithstanding the definition of environmental performance above, superior environmental performance is a standard used by EPA in evaluating XL projects. EPA uses a two-part method to determine whether an XL project will achieve superior environmental performance: 1) Develop a quantitative baseline estimate of what would have happened to the environment absent the project; then compare that baseline estimate against the project’s anticipated environmental performance, and 2) consider both quantitative and qualitative measures in determining if the anticipated environmental performance will produce a level of environmental performance superior to the baseline.

Exhibit A: Description of the Microelectronics EMS

The following description has been provided by Microelectronics and forms the basis for the other Parties' participation in this Project.

The foundation of the Microelectronics XL Project is the business-wide implementation and on-going operation of a comprehensive and high-quality EMS at all of its facilities. The EMS is regularly audited and certified by an independent and accredited registrar as conforming to the ISO 14001 EMS standard.

The Microelectronics EMS has been designed, with input from Pennsylvania DEP, USEPA and concerned citizens through the LEAGs, to address, and achieve results that meet, the XL criteria. Perhaps more importantly, it has been designed to identify and demonstrate the characteristics of a high-quality EMS. "High-quality" means that the EMS was designed to go beyond ISO 14001 or other standards so that it could form the basis for a new environmental governance model at a company, and the basis for new, more efficient and more effective models for the interactions between regulators and Microelectronics.

This Exhibit briefly describes the Microelectronics EMS. In Exhibit B, a matrix is provided that provides insight on how the Microelectronics EMS addresses both the characteristics of a quality EMS and the XL criteria.

As in other business systems, the Microelectronics EMS is managed by identifying potential opportunities and problems and establishing clear and manageable programs to take advantage of the opportunities and solve the problems

The Microelectronics EMS is designed to fully integrate environmental considerations and management into normal business operations. This integration is critical to making environmental progress sustainable within a business organization and, just as other business functions, continually improving.

Just as other business management systems, which identify business issues and then set goals and programs to address those issues, in its most basic form, the Microelectronics EMS is managed by:

1. **Identifying and determining the significance, or priority, of "environmental aspects"**, which are those aspects of its operations, products and services that are related to the environment (essentially, the inputs and outputs of the organization such as raw materials, water, energy, chemicals; and products, emissions, discharges and wastes). These include both regulated and non-regulated substances or activities. Microelectronics has established a number of criteria for determining which aspects will be considered significant. At a minimum, all regulated aspects are deemed significant, as well as any aspects

that reflect a certain level of toxicity or potential environmental impact, regardless of regulatory status. This procedure includes input from the LEAGs. These aspects are reviewed and updated annually.

2. **Identifying environmental "objectives", which represent what Microelectronics seeks to achieve through its EMS in addressing the management of its Significant Environmental Aspects.**

3. **Identifying "targets", which are the programs that define how the "objectives" will be achieved over time.**

4. **Continually monitoring and measuring performance toward implementing its targets and achieving the EMS objectives.**

In the setting of Objectives and Targets, Microelectronics believes several considerations are of key importance:

- Ensuring that past gains are maintained or improved upon and that programs for managing newly identified significant aspects are established as those aspects are identified;

- Addressing aspects wherever possible through pollution prevention and Design for the Environment

- Complying with all relevant statutes and regulations, but more importantly continually improving the EMS in order to achieve beyond compliance improvements in overall environmental performance in line with Microelectronics' Environmental Policy; and

- Taking into account the views of local stakeholders through the operation of the LEAGs. Stakeholders participate in the process of identifying and setting Objectives and Targets at every Microelectronics facility.

Documented Objectives and Targets are set at both the business-wide and facility-specific levels.

<u>An annual management cycle fosters continual improvement</u>

As in other normal business systems, environmental aspects are identified and Objectives and Targets set or revisited annually according to the following basic cycle:

Oct - Dec (1^{st} Fiscal Qtr)	**Jan - Mar** (2^{nd} Fiscal Qtr)	**Apr - Jun** (3^{rd} Fiscal Qtr)	**Jul - Sep** (4^{th} Fiscal Qtr)
At facilities first, then at the business level, managers review their 3 year strategic approach to environmental performance	**At facilities first, then at the business level, managers identify and prioritize environmental aspects**	**At facilities first, then at the business level, managers establish objectives and set targets**	**At facilities first, then at the business level, managers evaluate performance of the EMS**

Microelectronics' most senior management supports the EMS as any other business system, continually monitors performance, provides management incentives for high performance and drives continual improvement

Microelectronics' senior management believes sound environmental management and the EMS contribute to business goals and enhance competitiveness.

Microelectronics' Environmental Policy (Exhibit D), which is signed by the Group President, includes commitments to compliance, pollution prevention/Design for the Environment and continual improvement. This policy is the framework for setting and reviewing Objectives and Targets. Implementation of the Environmental Policy is documented through the EMS and communicated to all employees. It also is available to the public. The policy is being deployed globally through the EMS and evolves as lessons are learned.

Just as with any business unit, Microelectronics management provides adequate resources (financial, technical and human) to implement and control the EMS, including revisions to the EMS as referenced above. Further, Microelectronics has clearly defined and documented the roles and responsibilities within the EMS, including management incentives, the role of reporting on the performance of the EMS to top management and management's role in continually improving the EMS. At the end of each Quarter in the annual cycle described above, the Executive Committee reviews the EMS activity of that Quarter.

As in other parts of its business, Microelectronics has established documentation, operational controls and audit systems to ensure that employees can understand the system and that performance can be adequately monitored by program managers and senior management

To ensure that the EMS performance can be monitored adequately, the EMS is documented at three levels.

- A business-wide protocol describing the basic philosophy and framework of the EMS, consistent with ISO 14001, and providing direction to other documents that provide additional detail on the EMS.

- Group-level platform documents which identify and address specific elements of the EMS, such as the procedures for identifying Significant Environmental Aspects and setting Objectives and Targets. The Pennsylvania DEP, the Texas TNRCC, the USEPA and the Environmental Law Institute (ELI) participated in, or

were provided the opportunity to comment on, the development and evaluation of these group-level documents.

- Facility-level procedural documents have been created and implemented based on the group-level documents and site-specific concerns and needs.

Microelectronics has established and implemented documented procedures to control operations and activities associated with the Significant Environmental Aspects that it has defined. Specifically, Microelectronics has established operational level procedures and work instructions to control its Significant Environmental Aspects at each facility in accordance with its established policy (including the commitments to compliance, pollution prevention and continual improvement) which are reflected in documented Objectives and Targets.

Microelectronics has established and implemented procedures to train its employees regarding the importance of conforming with the EMS, the significant environmental impacts associated with their work activities, their roles and responsibilities within the EMS, their ability to influence and contribute to the EMS, and the potential consequences of the failure to follow operating procedures. These procedures cover both regulated and non-regulated areas.

A document control system is maintained to ensure that all EMS documents are accessible to those who need the documents to carry out their jobs, kept current and periodically reviewed by management to ensure they are current and adequate.

Microelectronics has established and implemented procedures for regularly monitoring and measuring the key characteristics of its operations. These include tracking performance against Objectives and Targets (including those stretch objectives that determine beyond compliance performance), as well as evaluating compliance with the law.

Periodic audits are conducted by personnel from Microelectronics or by external persons selected by Microelectronics to assess compliance with relevant statutes, regulations and company policies and programs. In addition, periodic audits are conducted to determine whether or not the EMS (1) conforms to planned arrangements for Microelectronics' EMS, including the requirements of ISO 14001; and (2) has been properly implemented and maintained.

Corrective action procedures based on audit findings, including defining responsibility and authority for handling and investigating non-conformance with the EMS (including beyond compliance objectives) and initiating corrective and preventive action, have also been established and implemented, and will continue to be addressed as required under the EMS.

To improve transparency, contribute to internal and external understanding of the EMS and its performance and enhance employee and stakeholder involvement, Microelectronics has established internal and external communications systems

Microelectronics has established and implemented procedures for internal and external communications on environmental issues. The internal communication procedures communicate expectations and requirements of the EMS between and across all corporate levels, including ensuring continual employee input on and involvement in the daily functioning of and potential improvement to the EMS.

As part of its relations with external stakeholders, each Microelectronics facility has established procedures for involving the local community in identifying its Significant Environmental Aspects, setting Objectives and Targets and receiving, responding to and documenting relevant communications about the EMS and its operation, including the actual performance of the system against Objectives and Targets. Each facility has, through defined procedures, created a LEAG for this purpose and meets with its LEAG on a regular basis. Exhibit D to this FPA is and overview of the Microelectronics communications procedures and LEAG guidelines.

All relevant documentation of the LEAG process is available for review by stakeholders.

Microelectronics has obtained third-party certification of its ISO 14001 EMS by an internationally accredited third party

In addition to the input of EPA, States, ELI and the LEAGs in the development of Microelectronics' EMS and performance criteria, the EMS has also been evaluated and certified by an accredited ISO 14001 registrar, Lloyd's Register Quality Assurance, which has determined that the EMS follows Microelectronics' own procedures and meets the ISO 14001 EMS standard. Each Microelectronics facility's implementation of the EMS has been individually independently certified, and Microelectronics has also received the first business-wide ISO 14001 certification issued anywhere in the world.

Exhibit B: 1996-1997 Superior Environmental Performance Record of EMS

The following performance record has been provided by Microelectronics to describe the development and operation of the EMS.

Microelectronics' XL project and the organization of its EMS began together, with regulators and the public, through the LEAGs, providing input or having the opportunity to comment on the EMS and its documentation. Over the first 18 months of operation, the EMS has established a track record. The chart below presents this record. Note that due to a recent reorganization of the Microelectronics Group, the Mesquite facility is no longer part of Microelectronics. However, the Superior Environmental Performance achieved during implementation of the EMS at Mesquite is still valid as an indicator of what a high quality EMS can achieve. None of the items below are required by regulation but, rather, have been initiated as a result of the EMS.

Superior Environmental Performance	**Superior Performance Description**
Superior Environmental Performance -1	**Energy Use/Greenhouse Gas Reductions** Microelectronics has implemented 83 energy savings projects which have resulted in the avoidance 19,500 metric tons of CO2 emissions from all Microelectronics facilities, collectively.
Superior Environmental Performance -2	**VOC Reduction (Mesquite)** The Mesquite facility has reduced VOCs far below the 60 TPY allowables of its air permit.
Superior Environmental Performance -3	**Water Conservation** Microelectronics has formed a cross-location Microelectronics Water Team to implement water conservation projects which have resulted in saving 440,000 gallons (approximately 7% of 1996 business-wide water consumption). Microelectronics achieved this usage avoidance in 1997 by focusing on four technology areas: 1) Generation & Distribution of Soft, DI, and Ultra-Pure Water in Allentown, Orlando and Reading; 2) Physical Plant Operations in Allentown; 3) Manufacturing processes at all facilities; and, 4) Wastewater Treatment Plant & Effluent Management at all facilities.
Superior Environmental Performance -4	**Wastewater Reduction (Reading)** Microelectronics' Reading facility has reduced waste water discharge at Reading by about 38,000 gpd. This was accomplished through optimization of chemical processes, alternative treatment or handling approaches and a recycle of treated effluent for lime mixing at the waste treatment plant.

1996-1997 Superior Environmental Performance Record of EMS (cont.)

Superior Environmental Performance	Superior Performance Description
Superior Environmental Performance -5	**Chemical Use Reduction** Microelectronics has built a system that allows for comparing chemicals now in use at Microelectronics against the Chemicals on Reporting Rules (CORR) list in order to determine strategies for managing chemicals with constraints throughout Microelectronics manufacturing facilities.
Superior Environmental Performance -7	**Waste Paper Recycling** Microelectronics has implemented and improved paper recycling programs which have resulted in the recycling of approximately 82% of all waste paper throughout Microelectronics' facilities.
Superior Environmental Performance -8	**Manufacturing Waste Reduction** Microelectronics is attempting to maintain environmental gains even as the company grows. For example, in 1987, Microelectronics generated 45.85 million pounds of manufactured process waste. In 1995, Microelectronics facilities had collectively reduced process waste to 16.1 million pounds. In 1996, despite a 16% growth rate in business activity, Microelectronics' facilities kept their manufacturing wastes at 16.7 million pounds, an increase of less than 3.75%.
Superior Environmental Performance -9	**Air Emissions Gains** Microelectronics is attempting to maintain environmental gains even as the company grows. In 1987, Microelectronics had toxic air emissions of1.4million pounds. In 1996, those same facilities emitted 0.044 million pounds, a 97% reduction despite a significant growth rate for the business from 1987 to 1996.
Superior Environmental Performance -10	**Addressing and Managing Non-regulated Substances/Issues** The Microelectronics EMS reviews all environmental aspects of the business regardless of whether they are covered by existing regulations. An environmental aspect found to be "Significant" by the EMS is managed, and its impacts minimized, regardless of whether that activity, substance or process is specifically regulated.
Superior Environmental Performance -11	**Hazardous Waste Reductions (Mesquite)** Microelectronics' Mesquite facility has reduced hazardous waste generation by 50%.
Superior Environmental Performance -12	**Pollution Prevention/DfE Risk Minimization** Through its PESE program, which covers all facilities Microelectronics is looking both to the past and to the future protection of the environment and workers. A Quality Improvement Team has designed a database tool to evaluate the environmental and worker safety issues associated with Microelectronics' manufacturing processes. The immediate benefits include changes to how Microelectronics equipment is operated

1996-1997 Superior Environmental Performance Record of EMS (cont.)

Superior Environmental Performance	Superior Performance Description
Superior Environmental Performance -13	**Worker Safety Rate Reduction** Through implementation of progressive safety programs which have qualified U.S. locations for participation under OSHA's Voluntary Protection Program, Microelectronics has reduced its reportable injury/illness rate to 1.8 cases per 100 employees. This is a 30% improvement over the 1996 year end reportable injury/illness rate of 2.6 cases per 100 employees.
Superior Environmental Performance -14	**Environmental Awareness Employee Training** Since few environmental programs outside pollution prevention are successful unless they are implemented by knowledgeable workers who understand environmental management and ethics, Microelectronics is working with employees to implement Behavior Management to improve its safety record and environmental approach by Environmental Awareness Training at all Microelectronics facilities. A behavior management program pilot was conducted at the Allentown location for expansion to other Microelectronics locations.
Superior Environmental Performance -15	**Transferability/International Facilities** Microelectronics transfers Superior Environmental Performance concepts internationally through its Environmental Action Team, because the EMS is applicable to all Microelectronics facilities, whether domestic or international.
Superior Environmental Performance -16	**Understanding of Environmental Programs by Stakeholders and Employees** Microelectronics, through the extensive involvement of its LEAGs in its EMS over the past 18 months, has significantly enhanced understanding of the Microelectronics environmental management system and performance at the company globally. In addition, Microelectronics has moved environmental documentation to its Intranet to foster employee knowledge of all aspects of the EHS and PESE programs, including reporting.
Superior Environmental Performance -17	**Audits and Audit Protocols** Microelectronics has utilized computerized programs to foster improved internal performance and better monitor business-wide compliance with all rules and regulations and Superior Environmental Performance programs. In addition, as part of the EMS, Microelectronics performs internal audits of all EMS elements on an annual basis. Additionally, as part of the EMS, Microelectronics conducts semi-annual third party audits by Lloyd's Quality Register Assurance, in addition to routine internal, employee-conducted audits to ensure conformance to the EMS and compliance with Superior Environmental Performance commitments.

Exhibit C: Concepts to be Tested

Environmental management systems can potentially have a variety of benefits both for the environment and for the facility. Some of the benefits that it has been suggested could grow out of an EMS are listed below. The parties to this agreement plan to use this project to test some or all of these hypotheses.

While this list may be modified during FPA implementation, the following provides an initial list, and schedule, of the concepts to be tested during the implementation of the Microelectronics XL project. Meeting the schedule indicated, as well as addressing all the concepts listed, will depend upon the development of the new relationships between regulators and Microelectronics and their enhanced participation in the EMS as described in Section IIE. This list assumes that full participation is implemented as defined in Section IIE over the term of the FPA. Under XL such concepts be tested together in a multi-disciplinary approach that coordinates all agencies and provides the flexibility necessary for environmental improvements that may not otherwise be made. Note that some concepts may require new indicators. All work will build upon lessons learned from other similar tests conducted either by EPA or other agencies or entities.

Concept		FY98[1]	FY99	FY00	FY01	FY02
1. A high-quality EMS will become a single vehicle for more efficiently governing and regulating all environmental activity at a facility or business and will drive a business to strive over the long-term to become a "permitless" company, where all activities are below regulatory thresholds.					X	X
2. A high-quality EMS will drive a business toward continuous environmental improvement and deliver performance beyond law and regulation.		X	X	X	X	X
3. A high-quality EMS will effect improvements in compliance, perhaps initially identifying compliance weaknesses and, over the long term, ensuring greater compliance.		X	X	X	X	X

[1] This is the fiscal year during which enough data should be available to develop conclusions about the concept.

Concepts to be Tested (cont.)

Concept		FY98	FY99	FY00	FY01	FY02
4. An EMS will fully integrate pollution prevention and DfE into normal business processes. This fosters a holistic view of the environmental effects of a product or action. It naturally moves the decisions about pollution reduction from factory managers to product designers and senior decision makers.		X	X	X	X	X
5. An EMS will integrate public concerns into normal business processes in a manner that is efficient and acceptable both to the public and the business entity.			X	X	X	X
6. An EMS will provide an efficient and on-going process for implementing regulatory flexibilities/efficiencies in a manner that results in superior environmental performance.			X	X	X	X
7. An EMS will create indicators to evaluate the cost savings or competitive efficiencies associated with regulatory flexibilities/efficiencies and will create new metrics or indicators that will assist in measuring real system costs and environmental progress.			X	X	X	X
8. An EMS will allow new regulations to be more efficiently and less contentiously integrated into business operations.		X		X		X
9. An EMS will foster transferability of sound environmental management practices, as well as efficiencies across a business and, potentially, to supplier and customer networks.				X	X	X
10. An EMS will make sound environmental management practices consistent across business, geographical and political boundaries thereby addressing environmental justice issues.			X	X		X
11. An EMS will incorporate employee disclosure and protection mechanisms into environmental management more effectively than current approaches .			X	X		X
12. An EMS will create reporting programs that are more understandable, transparent and current, comprehensive and less costly than programs currently required.		X				X

Concepts to be Tested (cont.)

Concept		FY98	FY99	FY00	FY01	FY02
13. An EMS will result in more productive relationships between regulators and regulated entities in the Microelectronics Project. It also will identify enforcement approaches that provide incentives to achieve better performance and will allow more effective enforcement that is less contentious and more efficient for regulators and regulated entities.					X	X
14. An EMS will align manager and employee rewards and incentives with sound environmental practice.		X	X	X	X	X
15. An EMS will allow regulators the capability to better understand business considerations.		X	X	X	X	X
16. By integrating P2 and DfE into normal business practices, an EMS will foster technology improvements and transferability of technology.			X	X	X	X
17. An EMS will facilitate the development across all media of de minimis thresholds below which regulation may not be necessary.					X	X
18. Third party certification of an EMS improves performance and quality.		X	X	X	X	X

Exhibit D: Microelectronics EMS Policy Statement

Environmental, Health and Safety Policy

Lucent Technologies
Microelectronics Group

The Microelectronics Group of Lucent Technologies Inc. is committed to the protection and preservation of the environment and a safe and healthy workplace for all employees. It is our intent to be recognized by our customers, employees, community, and stakeholders as a responsible business committed to continual improvement in environmental, health and safety (EH&S) management in all business activities. To that end we shall:

- Establish Objectives and Targets that consider environmental aspects and health and safety issues as an integral part of our business decision making process.
- Comply with all applicable laws, regulations, permits, Lucent worldwide standards and other requirements to which we subscribe.
- Provide a workplace which supports prevention of injury and illness by fostering safety and health culture that encourages employee participation and individual accountability.
- Develop employee knowledge and understanding of EH&S issues related to job functions.
- Promote conservation of resources in design, manufacture and use of our products by reusing, recycling and by adopting processes which conserve the use of raw materials, energy and water.
- Promote pollution prevention by striving to reduce the generation of waste from existing and future operations.
- Communicate this EH&S policy to all employees and make it available to the public.
- Engage the participation of the communities in which we do business.

Implementation of this policy is a primary management objective and the responsibility of all employees. This policy supports the Lucent Technologies EH&S Policy.

John T. Dickson
President
Microelectronics Group
Lucent Technologies
March 1998

X. Signature Page

This Interim Agreement is executed by individuals duly authorized to do so on behalf of their organizations.

Accepted on behalf of the United States Environmental Protection Agency:

_____

W. Michael McCabe, Regional Administrator
Region III
United States Environmental Protection Agency

August 19, 1998

Accepted on behalf of the Pennsylvania Department of Environmental Protection:

_____

James M. Seif, Secretary
Pennsylvania Department of Environmental Protection

August 19, 1998

Accepted on behalf of stakeholders by the Environmental Law Institute:

_____

Erik Meyers, General Counsel
Environmental Law Institute

August 19, 1998

Accepted on behalf of the Microelectronics Group of Lucent Technologies, Inc.:

_____

John T. Dickson, President
Microelectronics Group
Lucent Technologies

August 19, 1998