APPENDIX C

EXECUTIVE SUMMARY OF A POWER PURCHASE AGREEMENT

EXECUTIVE SUMMARY
OF
PURCHASED POWER AGREEMENT

Supplier Name

This Executive Summary describes the principal terms and conditions of an agreement (the "Agreement") between Duke Power Company ("Duke") and the owner/operator ("Supplier") of an electric generating facility which is a qualified facility ("QF") under the Public Utilities Regulatory Policies Act of 1978 ("PURPA"). In the event of an inconsistency or conflict between the Agreement and this Executive Summary the terms of the Agreement shall apply.

ARTICLE 1 (Service Requirements) sets forth basic information about Supplier's facility (the "Facility") including, among other things, its nameplate capacity, location of the delivery point where Supplier will deliver energy to Duke, and the Supplier's "Capacity Commitment" (the average capacity in kilowatts Supplier commits to deliver to Duke during On-Peak Hours). Articles 1.6 and 1.7 set forth metering and fuel cost information requirements. Article 1.9 states that back-up and maintenance power for the Facility's auxiliary electrical requirements shall be purchased from Duke pursuant to a separate electric service agreement on an appropriate rate schedule.

ARTICLE 2 (Service Regulations and Regulatory Approval) states that the Agreement is contingent upon the Supplier obtaining and maintaining approval from all applicable regulatory bodies. Article 2.2 states that the provisions of the Agreement are subject to review by the North Carolina Utilities Commission (the "Commission"), and Article 2.3 provides that the sale, delivery, receipt and use of electric power under the Agreement is governed by Duke's Service Regulations as filed with the Commission, and that changes to said regulations upon order of the Commission, which changes are in conflict with the provisions of this Agreement, shall control over such provisions. However, Article 2.4 states that to the extent this Agreement is explicity approved by an order of the Commission, Article 2.2 shall not apply, and the Agreement shall control over any changes to the Service Regulations except those which relate to extra facilities and metering. Article 2.5 states that whether or not the Agreement is explicity approved by the Commission, it is thereafter subject to review in a general rate case or by complaint proceeding.

According to ARTICLE 3 (Term), the term of the Agreement begins on the date of execution and shall continue for _____ years from the Commercial Operations Date, which is defined in Article 3.4 as the date of the first regular meter reading following receipt by Duke of written notice from the Supplier declaring the Facility to be in Commercial Operation, after the Facility has passed

acceptance testing. The Anticipated Commercial Operations Date is _____, 199__, but Supplier may revise the Anticipated Commercial Operations Date one time during the first six months following execution of the Agreement, to a date not later than twelve months after the originally specified date.

Article 3.2 provides that the Supplier shall notify Duke of the date of the commencement of construction of the Facility, commencement of construction being defined therein.

Article 3.3 provides that the Initial Delivery Date shall be the first date upon which energy is generated by the Facility and delivered to and metered by Duke. The Anticipated Initial Delivery Date is _____. The Supplier may change the Anticipated Initial Delivery Date on written notice to Duke at least one year prior to the revised date, but in no event may the Initial Delivery Date be earlier than _____.

Article 3.5 sets forth a procedure to determine the disposition of power produced by the plant after the expiration of this Agreement. Between 45 and 60 months prior to the expiration of this Agreement, Supplier must notify Duke as to whether it wishes to continue to generate electricity at the Facility. If it does, Duke must then, within six months of Supplier's notice, respond by notifying Supplier as to whether Duke wishes to continue to purchase energy and capacity. If Duke does wish to continue such purchases, the parties will then enter into good-faith negotiations to conclude a new purchased power agreement. The rates for the new agreement will be determined based upon Duke's then-current projections of avoided capacity and energy costs and other relevant factors. If Duke notifies Supplier that it does not wish to continue to purchase energy and capacity, or if the parties cannot reach a new agreement, then they are to negotiate the disposition of power to be generated at the Facility, provided that Duke is not to be obligated to transmit power from the Facility directly to any ultimate consumers of electricity.

ARTICLE 4 (Rate Schedule) provides that energy and capacity payments to the Supplier will be determined using the rates or rate formulas set forth in Appendix A, applying the energy credit rates to the KWH delivered to Duke during the On-Peak Hours and Off-Peak Hours (as defined therein) of each month, and applying the capacity credit rates to the KWH delivered to Duke during the On-Peak Hours of each month, up to a maximum of 110 percent of the then-applicable Capacity Commitment. Article 4.6 sets forth a mechanism for adjusting the energy in the event the average monthly power factor is less than 90 percent or greater than 97 percent.

Article 4.7 provides that payments to be made to the Supplier are conditioned on recovery by Duke of all of said payments from its customers. If Duke is denied such recovery, Duke may reduce

payments to Supplier to the highest level allowed by the Commission or other regulatory body. If Duke initially recovers payments, but recovery is subsequently disallowed and charged back to Duke, Duke may offset subsequent payments due from Duke to Supplier, or may require repayment by Supplier.

ARTICLE 5 (Capacity Commitment) states that Supplier shall operate its generating facilities so as to meet its Capacity Commitment as designated in Article 1.5(b) in each On-Peak Month. Article 5.1(a)-(d) sets forth the definitions of "Capacity Commitment"; "Average On-Peak Capacity"; "Monthly Capacity Ratio" and "Annual Capacity Ratio" and the methodologies for calculating them. Article 5.1(e) states that reductions in capacity resulting from Service Interruptions (as defined in Article 8), changes in steam sales requirements or for reasons other than Force Majeure that occur during the On-Peak Hours of the On-Peak Months are not excluded from the calculations of the Average On-Peak Capacity and the Capacity Ratios. Article 5.1(f) sets forth the circumstances under which On-Peak Months during which performance has been affected by conditions or events of Force Majeure shall be excluded from or included in the calculation of the Annual Capacity Ratio.

Article 5.2 states that when the Annual Capacity Ratio is less than 90 percent for two consecutive months, the Capacity Commitment will automatically be reduced. The revised Capacity Commitment is calculated by multiplying the previous Capacity Commitment by the Annual Capacity Ratio existing at the end of the two-month period. In the event of an automatic Capacity Commitment reduction, pursuant to Article 5.2(a), or an agreed-upon Capacity Commitment reduction pursuant to Article 5.2(b), the costs and damages provisions of Paragraph 11.1 shall apply, according to Article 5.4.

ARTICLE 6 (Interconnection Facilities) states that Duke will furnish, own and maintain appropriate interconnection facilities in order to serve the Supplier. Supplier shall, upon completion of installation of the Interconnection Facilities, pay a monthly charge totaling, as a preliminary estimate, $_____, which is 1.7 percent of the installed cost. The final costs and charges shall be calculated no earlier than 12 months prior to the installation of the Interconnection Facilities. Duke reserves the right to install additional facilities, and to adjust the Interconnection Facilities Charge for such additional facilities or to reflect Commission-approved changes in the Extra Facilities provisions of Duke's Service Regulations.

ARTICLE 7 (Payments) sets forth billing and payment procedures. Duke reserves the right to set off any amounts due to it from Supplier against any amounts due from Duke to Supplier.

ARTICLE 8 (Service Interruptions) states that, while the parties shall use reasonable diligence to provide satisfactory service, they do not guarantee continuous service. Article 8.2 lists conditions or events which are defined as "Service Interruptions." Pursuant to Article 8.3, neither party shall be liable for any loss or damage resulting from Service Interruptions, except that Supplier shall be liable to Duke for costs and damages as set forth in Article 11.1 if the occurrence of Service Interruptions results in a capacity reduction.

ARTICLE 9 (Force Majeure) defines certain circumstances which are "beyond the reasonable control" of the parties as "conditions or events of Force Majeure", and also lists certain events and circumstances which are excluded from that definition. Pursuant to Article 9.3, if certain conditions are met, then the parties are not responsible for any delay or failure of performance due solely to force majeure (except for the requirement for Supplier to begin commercial operation as set forth in Article 3.4). However, notwithstanding Article 9.3, Article 9.4 states that such failures of performance may be excused by force majeure for periods of no longer than one year and not beyond the term of the Agreement. Thus, delays or failures of performance, even if excused by force majeure, become defaults one year from the date that the affected party notifies the other party of the condition or event of Force Majeure. At such time, the other party may terminate the Agreement or may, in its sole discretion, extend the period for which the delay or failure in performance is excused. If, under such circumstances, Duke does not terminate the Agreement, and the condition or event of Force Majeure results in a capacity reduction, then the provisions of Article 5.1(f), which relate to the inclusion or exclusion of months for calculation of the Annual Capacity Ratio, apply. Pursuant to Article 9.5, if the parties anticipate that any condition or event of Force Majeure will cause a capacity reduction, the parties may thereafter agree to reduce the Capacity Commitment, pursuant to Article 5.2(b), with the Supplier paying costs and damages to Duke for such reduction pursuant to Article 11.1.

ARTICLE 10 (Default) sets forth procedures to be followed in the event of default. Unless the default arises out of a condition or event of Force Majeure, in which event the provisions of Article 9 shall apply, the defaulting party is given 60 days to cure the default (except that if it cannot be cured within 60 days with the exercise of due diligence, the defaulting party may submit a plan for the other party's approval which will correct the default within a reasonable period of time not to exceed six months). If the defaulting party fails to submit such a plan, or if the other party declines to approve it, or if the defaulting party fails to cure the default in conformance with the plan, then the other party may exercise its rights and remedies as set forth in Article 10. Article 10.2 lists a variety of specific circumstances and events which constitute a default by Supplier.

ARTICLE 11 (Costs and Damages) sets forth certain damages which Supplier may be required to pay to Duke upon occurrence of: each capacity reduction (including agreed upon capacity reductions pursuant to Articles 5.2(b) or 9.5); termination by Duke due to Supplier's default; default by Supplier pursuant to Article 10 which does not result in a termination or reduction in capacity; or termination pursuant to Article 9.4. The costs and damages include: unpaid charges due to Duke including Interconnection Facilities charges; costs associated with the removal of Interconnection Facilities; loss due to early retirement of the Interconnection Facilities; and, in the event of a termination or capacity reduction, liquidated damages to compensate Duke for the detrimental effect on Duke's cost of power. The liquidated damages shall be calculated pursuant to the formulas in Appendix B. Also, in the event of a default by Supplier which does not result in a termination or capacity reduction, any actual damages incurred by Duke shall be paid by Supplier.

ARTICLE 12 (Operation of the Generating Facilities) sets forth certain responsibilities of the Supplier in its operation of the Facility. These include: Supplier is responsible for providing devices on its equipment to assure that there is no disturbance to Duke's facilities or other customers, and to protect Supplier's equipment from damage; Supplier agrees to operate and maintain the Facility "in accordance with applicable electric utility industry standards and good engineering practices" and in a prudent manner which will produce the maximum electric energy output consistent with the Agreement's dispatch and Capacity Commitment provisions; and Supplier shall coordinate its schedule for routine maintenance so that scheduled outages and capacity reductions occur during Off-Peak Hours or Off-Peak Months, with scheduled maintenance resulting in outages or capacity reductions restricted to 45 days per year. Article 12.3 includes a chart which sets forth the required minimum advance notice to Duke of scheduled outages according to the duration of the outage. Article 12.4 states that in the event of an emergency condition on Duke's system, Supplier shall increase or decrease the output of the Facility upon Duke's request, within the design limits of the facility.

ARTICLE 13 (Liability and Indemnity) sets forth liability and indemnity provisions for the Agreement. The indemnifying party agrees to be responsible for damages to persons or property arising out of the indemnifying party's negligent or tortious acts, errors or omissions, whether such persons or property are affiliated with the indemnifying party, the other party or third parties. Indirect and consequential damages are excluded.

ARTICLE 14 (Security) sets forth Supplier's obligation to provide security under the Purchased Power Agreement for its performance, including its obligation to pay costs and damages pursuant to Article 11.1. Such Security must be in place within 60 days after the Agreement is approved or

accepted by filing by the Commission, and shall be maintained through the term of the Agreement. Article 14.2 sets forth the formula which shall be used annually to determine the amount of security required, and provides that the Security may be reduced by 50 percent from the commencement of construction of the Facility until 15 days prior to the Commercial Operations Date. Article 14.3 specifies the form of security, which may be an irrevocable standby letter of credit, a performance bond or cash. Articles 14.4 and 14.5 contain provisions designed to ensure that the security remains in force continuously during the term of the Agreement.

ARTICLE 15 (Communications) sets forth procedures for communications and notices between the parties.

ARTICLE 16 (Assignability) requires the Supplier to advise Duke and the Commission of any plans to sell, transfer or assign the Facility, and restricts the rights of the parties to assign or subcontract the Agreement and its rights and duties. In most cases consent of the other party (which shall not be unreasonably withheld) is required prior to assignment or subcontracting. However, such consent is not required prior to an assignment by Duke to a parent, subsidiary or affiliated corporation, or by Supplier to a trustee or mortgagee pursuant to a financing agreement. In the case of any assignment, with or without prior consent, prior notice must be given to the other party, the assignee shall expressly assume the assignor's obligations (but no such assignment shall relieve the assignor of its obligations to perform in the event the assignee fails to perform), the assignment shall not impair any security given by Seller, and the contemplated assignee must obtain any necessary regulatory approvals including that of the Commission.

ARTICLE 17 (Miscellaneous) contains various contractual provisions. Supplier should review all of the provisions of Article 17.

APPENDICES:

APPENDIX A sets forth the rate or rate formulas.

APPENDIX B sets forth the formula for calculating liquidated damages.

APPENDIX C sets forth the estimated Interconnection Facilities charges.

APPENDIX D sets forth the formulas for calculating the power factor adjustment.

APPENDIX E includes Duke's Service Regulations in effect as of the date of execution of this Agreement.

APPENDIX D

SAMPLE REQUEST FOR PROPOSALS FOR LANDFILL GAS ENERGY PROJECT DEVELOPER

Department of Solid Waste

REQUEST FOR PROPOSALS - LANDFILL GAS
15 July 94

The City is soliciting proposals from environmental or energy management organizations, user industries, turnkey system providers and environmental engineering firms for the beneficial use of landfill gas (LFG).

BACKGROUND

The City owns and operates a 200+ acre Solid Waste Management Center (SWMC) which is managed by the Solid Waste Department. The SWMC contains a recently closed landfill having a footprint of approximately 52 acres. That landfill, the focus of this RFP, was originally placed on glacial till and is now capped with materials in compliance with New York's Part 360 regulations.

The cap design includes a membrane and a series of vent structures. Underneath the membrane is a permeable layer of natural materials which also contains a series of collection pipes, all linked to two header pipes emerging from under the cap at opposite points along the landfill's perimeter. A gravity leachate interception system has also been constructed beneath the perimeter of the landfill, leading to a single discharge point wherein any flowing condensate and residual LFG may be intercepted.

The design principle was to allow for conversion from a passive to an active LFG system by sealing the vents and activating a pumping system at one or both of the headers.

Initial measurements suggest natural production of approximately 975,000 cubic feet of LFG each day. This was based on a composite of low pressure measurements at 53 vent stacks. There are six other emission points were not measured at the time. Qualitative data is attached, as measured on a Landtec Gem 500. Data and observations suggest that the entire regime is currently sensitive to ambient air pressure differentials induced by wind.

Other features within the SWMC include:

1) a separate new active landfill with a present 10 acre footprint

and a loading rate of approximately 34,000 tons per year, which began operations in Sept. '92,

2) a 4,000 s.f. maintenance building for department vehicles and equipment,

3) overhead electric transmission lines with various voltages,

4) underground natural gas (high pressure) pipelines,

5) a 650,000 gallon glass lined steel open top storage tank for leachate (emergency use only), and

6) an improved roadway system between features.

Planned or contemplated improvements within or immediately adjacent to the SWMC include:

a) a compost processing area for vegetative waste materials,

b) artificial wetlands for partial or full treatment of landfill leachate,

c) a major structure for processing recyclable materials, possibly linked with a privately operated manufacturing enterprise utilizing recycled materials as feedstock(s), and

d) a new central garage facility within the SWMC for City owned vehicles.

Adjacent to the SWMC is an industrial park, including a major facility for the manufacture of air conditioning equipment and several other manufactures. Approximately 50 acres remain available for development. The Park is entirely within a NYS Economic Development Zone ("EDZ").

Nearby is a wastewater treatment plant which is owned and operated by the City (land linked). It contains a sludge incinerator and numerous pumps.

The City's Utilities Department operates two hydroelectric generation plants (combined 1.2 MW) and has plans for at least one additional plant in the near future.

Major intercepting sewer system components are located within contiguous City-owned rights of way.

RESPONDENTS SHOULD TAKE INTO CONSIDERATION THAT IT IS THE CITY'S INTENT TO MAXIMIZE THE USE AND BENEFIT OF ALL AVAILABLE CITY RESOURCES AND INFRASTRUCTURE IN THE MOST COST-EFFECTIVE MANNER POSSIBLE.

REQUEST FOR PROPOSALS

The City views the LFG at the SWMC as an untapped resource whose collection system is installed. Primary interest is in LFG utilization with maximum benefit to the City as a return on the substantial investment made in the SWMC to data. This benefit may take the form of one or more of the following:

- simplified sale of the LFG "as is, where is",
- royalties based on LFG utilization by others,
- direct earnings after additional investment in enterprise by the City, and
- realized savings from avoided costs (to obtain other conventional fuels).

The City and/or its agents are willing to consider conventional contracts, "Performance Based" contracts, partnerships, joint ventures, management agreements, and other appropriate mechanisms respondents may propose.

REQUIRED COMPONENTS OF RESPONSES

1) A basic component of all responsive proposals must be the provision of sufficient professional engineering services to accurately and responsibly portray technical issues regarding the complex medium of landfill gas, and do so gracefully within the arena of environmental regulations as they are administered by the New York State DEC and the federal EPA. As a minimum, flaring or any alternative backup methodology is to be included in order to avoid reversion to a passive venting system except under significant emergency conditions. A

permanent and adequate LFG monitoring system is to be included in this component.

2) Additional components should address one or more means by which the energy represented in combustible gas can be harnessed, either by direct combustion of LFG or subsequent to refinement. Proposals incorporating utilization of byproduct gas (from refinement) are encouraged.

3) Since LFG production is presumed to remain relatively constant throughout the year, additional components should also address levelizing consumption or incorporating storage if necessary or beneficial.

4) Any necessary design or structural adjustments to the existing LFG collection system must be clearly stated.

5) Proposals incorporating electrical energy distribution beyond a local regulated system should also address matters relating to wheeling.

6) Respondents are encouraged to incorporated design and operations procedures adjustments for the currently operating landfill (also within the SWMC) in order to capitalize on increasing amounts of LFG being generated therein.

7) Proposals should clearly state the nature of the initial working relationship between the City and the proposer. It should also state any proprietary interest the proposer has in other proposed or operating LFG utilization systems.

8) If proposers include subordinated or collaborative roles by other organizations, those roles should be clearly stated.

ILLUSTRATIONS OF POTENTIAL RELATIONSHIPS WITH AUBURN

1) As consultant, providing professional engineering or management services - with the City fully responsible for fiscal implementation with or without contracted operations services.

2) As turnkey provider of a designed, permitted and constructed facility with all user/sales agreements in place.

3) As wellhead purchaser of LFG with or without lease/purchase of real estate within the SWMC and/or industrial park.

4) As equity partner in the development and operation of a LFG system and/or related enterprise, utilizing subordinated engineering services.

5) As long term contractor for inclusion of LFG as part of more extensive solid waste management services.

6) As federal/state research and development agency, sharing an equity role.

Proposers are invited to counsel the City regarding the technical and business merits of as many LFG utilization options as appear to be practical for the City to independently or mutually pursue toward the goals of increasing revenue and/or avoiding costs: and, leveraging this resource as a development incentive for new enterprises. They may also be direct action proposals.

It is not the intent of this RFP to emphasize the need for further detailed quantitative or qualitative analysis of LFG presently generated within the SWMC.

Most aspects of proposals are considered to be public domain. Those aspects considered to be proprietary should be identified and bound separately, thereupon they will honored as such. Until such time as formal negotiations begin with a selected proposer, it is suggested that cost and/or investment information be stated in ranges. Cost and/or investment information will be kept confidential during negotiations, but final agreements will be public domain.

PROPOSAL TIMETABLE

The City is actively pursuing construction projects which may benefit from the use of LFG. It is also mindful of the value lost while passive ventilation of LFG takes place. Due to the potential complexity of different proposals, only a target date of 1 Aug 94 has been established. Following an initial response of interest (together with any generic qualification information), the City will schedule a preproposal conference, during which time all available information regarding the SWMC, the neighboring industrial park, and potentially related City projects can be reviewed. Field orientation will also be provided. Potential proposers will be canvassed regarding preparation time before a final

proposal date is established.

TENTATIVE SCHEDULE

RFP available/mailed to prospective respondents	15 July 94
Initial expression of interest to City by	27 July 94
Preproposal conference, incl. site visit	wk of 1 Aug 94
Repeat preproposal conf., as needed	3rd wk of August
Proposal Submission Date:	15 Sept 94

CITY'S PROPOSAL EVALUATION TEAM

The team will consist of the City Manager, the Utilities Director, the Solid Waste Director, the Corporation Counsel, and a member of the City Council. The same team will later guide formal agreements to conclusion.

PROPOSAL EVALUATION CRITERIA

Proposals will be evaluated in terms of:

- comprehensiveness 20%
- creativity 10%
- earnings potential for City 50%
- recognition of solid waste priorities 10%
- recognition of environmental concerns 10%

BRIEF SOLID WASTE HISTORY IN AUBURN

Since it's founding over 200 years ago, the City gradually became involved in waste disposal, first as provider of various dumps, then as collector. Burning dumps finally became a thing of the past in the 1950's with the most recent one being along the edge of North Division St. - at the entrance to the SWMC.

Collection services for garbage and trash became more precise as interest grew in recycling. At about the same time the State regulations were strengthening with regard to land disposal.

Disposal operations continued on the large site at the extreme Northwest corner of the City, but now as a sanitary landfill. Burning practices stopped. A new section of the site was utilized, but liner systems had not yet entered the regulatory regime. Wastes came in from many areas of Cayuga County, and even portions of neighboring Onondaga County.

Between the 1950's and 1980's many on Auburn's older structures were demolished as the economic base shifted away from a wide variety of manufacturing, which had origins along the waterway running through the center of the City. Remains of several factories and related structures ended up in the (common) landfill, which was extended laterally over the relatively tightly compacted natural ground. The entire site has a complex geologic history due in part to glacial movements.

As solid waste matters came more into focus, New York's plans and regulations evolved into some of the most sophisticated in the nation. It became a common objective to switch away from unlined landfills to lined ones.

Auburn's 50 acre+ landfill was one slated for closure. The City was destined by plan to continue providing and disposal capacity for the entire county. A replacement landfill was built on lands partly within the City and partly on lands acquired by the City and later annexed.

New York's regulatory standards for closure of all landfills continued to strengthen, and Auburn suddenly faced a multi million dollar closure investment toward the end of the landfill's permitted life. To meet those costs, the City worked out a Consent Order with the NYSDEC to continue operating in the then existing landfill, (known as Landfill No. 1), while constructing a new lined Landfill No. 2. During this window of opportunity for raising closure capital, the City allowed importation of large quantities of waste from distant sources, which was allowable since no lateral expansion of

the footprint was necessary.

Hence, during the final two years of its operation (ending 15 Sept 92), Landfill No. 1 commonly received up to 2,500 tons of waste per day, up from the routine amount by a factor of at least 10. All of those wastes were added to the relatively low and spread out landfill as it had evolved prior to importation. For that short period of time, the operation was more similar to those of larger metropolitan systems.

Landfill's No. 1's closure included some regarding, the placement of a more rational means to intercept remaining leachate, and a circumfrential roadway. Capping was begun on a North Slope even while filling continued to the South. The first detailed engineering work was done by C&S Engineers, and construction was by the Haseley Trucking Co.

After Landfill No. 2 opened, waste importation ceased. Tonnage abruptly returned to more "normal" levels. At that time, the South Slope closure work was begun with Steams & Whaler providing engineering services and the Tug Hill Construction company doing the improvements. With winter shutdowns, it took just under two years to complete closure construction at an overall cost approaching $10 million. Coordination of side by side engineering and construction was provided by the Department, with a welcomed role played by the Regional Office of the NYSDEC.

The City has developed an entrepreneurial approach to fiscal integrity. The SWMC will continue to play a strong role in providing revenue to the general fund. This will likely take several forms, as more and more management strategies are developed particular components of the solid waste stream. The City considers it prudent to only landfill those materials which cannot be managed within higher priority methodologies.

The benefit, as such, from large scale recent waste intake is now the natural production of an energy source. It is the City's objective to harness that energy to the benefit of the city as a whole, and/or the direct benefit to higher priority management of those wastes which do not <u>have</u> to be landfilled.

In its present configuration, the SWMC will continue to meet the needs of the Local Planning Unit (Cayuga County) for decades to come.

APPENDIX E

EPA MEMORANDUM ON POLLUTION CONTROL PROJECTS AND NEW SOURCE REVIEW (NSR) APPLICABILITY

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

JUL 1 1994

MEMORANDUM

SUBJECT: Pollution Control Projects and New Source Review (NSR) Applicability

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air, Pesticides and Toxics Management Division, Regions I and IV
Director, Air and Waste Management Division, Region II
Director, Air, Radiation and Toxics Division, Region III
Director, Air and Radiation Division, Region V
Director, Air, Pesticides and Toxics Division, Region VI
Director, Air and Toxics Division, Regions VII, VIII, IX and X

This memorandum and attachment address issues involving the Environmental Protection Agency's (EPA's) NSR rules and guidance concerning the exclusion from major NSR of pollution control projects at existing sources. The attachment provides a full discussion of the issues and this policy, including illustrative examples.

For several years, EPA has had a policy of excluding certain pollution control projects from the NSR requirements of parts C and D of title I of the Clean Air Act (Act) on a case-by-case basis. In 1992, EPA adopted an explicit pollution control project exclusion for electric utility generating units [see 57 FR 32314 (the "WEPCO rule" or the "WEPCO rulemaking")]. At the time, EPA indicated that it would, in a subsequent rulemaking, consider adopting a formal pollution control project exclusion for other source categories [see 57 FR 32332]. In the interim, EPA stated that individual pollution control projects

involving source categories other than utilities could continue to be excluded from NSR by permitting authorities on a case-by-case basis [see 57 FR at 32320]. At this time, EPA expects to complete a rulemaking on a pollution control project exclusion for other source categories in early 1996. This memorandum and attachment provide interim guidance for permitting authorities on the approvability of these projects pending EPA's final action on a formal regulatory exclusion.

The attachment to this memorandum outlines in greater detail the type of projects that may qualify for a conditional exclusion from NSR as a pollution control project, the safeguards that are to be met, and the procedural steps that permitting authorities should follow in issuing an exclusion. Projects that do not meet these safeguards and procedural steps do not qualify for an exclusion from NSR under this policy. Pollution control projects potentially eligible for an exclusion (provided all applicable safeguards are met) include the installation of conventional or innovative emissions control equipment and projects undertaken to accommodate switching to an inherently less-polluting fuel, such as natural gas. Under this guidance, States may also exclude as pollution control projects some material and process changes (e.g., the switch to a less polluting coating, solvent, or refrigerant) and some other types of pollution prevention projects undertaken to reduce emissions of air pollutants subject to regulation under the Act.

The replacement of an existing emissions unit with a newer or different one (albeit more efficient and less polluting) or the reconstruction of an existing emissions unit does not qualify as a pollution control project. Furthermore, this guidance only applies to physical or operational changes whose primary function is the reduction of air pollutants subject to regulation under the Act at existing major sources. This policy does not apply to air pollution controls and emissions associated with a proposed new source. Similarly, the fabrication, manufacture or production of pollution control/prevention equipment and inherently less-polluting fuels or raw materials are not pollution control projects under this policy (e.g., a physical or operational change for the purpose of producing reformulated gasoline at a refinery is not a pollution control project).

It is EPA's experience that many bona fide pollution control projects are not subject to major NSR requirements for the simple reason that they result in a reduction in annual emissions at the source. In this way, these pollution control projects are outside major NSR coverage in accordance with the general rules for determining applicability of NSR to modifications at existing sources. However, some pollution control projects could result in significant potential or actual increases of some pollutants. These latter projects comprise the subcategory of pollution control projects that can benefit from this guidance.

A pollution control project must be, on balance, "environmentally beneficial" to be eligible for an exclusion. Further, an environmentally-beneficial pollution control project may be excluded from otherwise applicable major NSR requirements only under conditions that ensure that the project will not cause or contribute to a violation of a national ambient air quality standard (NAAQS), prevention of significant deterioration (PSD) increment, or adversely affect visibility or other air quality related value (AQRV). In order to assure that air quality concerns with these projects are adequately addressed, there are two substantive and two procedural safeguards which are to be followed by permitting authorities reviewing projects proposed for exclusion.

First, the permitting authority must determine that the proposed pollution control project, after consideration of the reduction in the targeted pollutant and any collateral effects, will be environmentally beneficial. Second, nothing in this guidance authorizes any pollution control project which would cause or contribute to a violation of a NAAQS, or PSD increment, or adversely impact an AQRV in a class I area. Consequently, in addition to this "environmentally-beneficial" standard, the permitting authority must ensure that adverse collateral environmental impacts from the project are identified, minimized, and, where appropriate, mitigated. For example, the source or the State must secure offsetting reductions in the case of a project which will result in a significant increase in a nonattainment pollutant. Where a significant collateral increase in actual emissions is expected to result from a pollution control project, the permitting authority must also assess whether the increase could adversely affect any national ambient air quality standard, PSD increment, or class I AQRV.

In addition to these substantive safeguards, EPA is specifying two procedural safeguards which are to be followed. First, since the exclusion under this interim guidance is only available on a case-by-case basis, sources seeking exclusion from major NSR requirements prior to the forthcoming EPA rulemaking on a pollution control project exclusion must, before beginning construction, obtain a determination by the permitting authority that a proposed project qualifies for an exclusion from major NSR requirements as a pollution control project. Second, in considering this request, the permitting authority must afford the public an opportunity to review and comment on the source's application for this exclusion. It is also important to note that any project excluded from major new source review as a pollution control project must still comply with all otherwise applicable requirements under the Act and the State implementation plan (SIP), including minor source permitting.

This guidance document does not supersede existing Federal or State regulations or approved SIP's. The policies set out in this memorandum and attachment are intended as guidance to be applied only prospectively (including those projects currently under evaluation for an exclusion) during the interim period until EPA takes action to revise its NSR rules, and do not represent final Agency action. This policy statement is not ripe for judicial review. Moreover, it is not intended, nor can it be relied upon, to create any rights enforceable by any party in litigation with the United States. Agency officials may decide to follow the guidance provided in this memorandum, or to act at variance with the guidance, based on an analysis of specific circumstances. The EPA also may change this guidance at any time without public notice. The EPA presently intends to address the matters discussed in this document in a forthcoming NSR rulemaking regarding proposed changes to the program resulting from the NSR Reform process and will take comment on these matters as part of that rulemaking.

As noted above, a detailed discussion of the types of projects potentially eligible for an exclusion from major NSR as a pollution control project, as well as the safeguards such projects must meet to qualify for the exclusion, is contained in the attachment to this memorandum. The Regional Offices should send this memorandum with the attachment to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate EPA Regional Office. Regional Office staff may contact David Solomon, Chief, New Source Review Section, at (919) 541-5375, if they have any questions.

Attachment

cc: Air Branch Chief, Regions I-X
NSR Reform Subcommittee Members

Attachment

GUIDANCE ON EXCLUDING POLLUTION CONTROL PROJECTS FROM MAJOR NEW SOURCE REVIEW (NSR)

I. Purpose

The Environmental Protection Agency (EPA) presently expects to complete a rulemaking on an exclusion from major NSR for pollution control projects by early 1996. In the interim, certain types of projects (involving source categories other than utilities) may qualify on a case-by-case basis for an exclusion from major NSR as pollution control projects. Prior to EPA's final action on a regulatory exclusion, this attachment provides interim guidance for permitting authorities on the types of projects that may qualify on a case-by-case basis from major NSR as pollution control projects, including the substantive and procedural safeguards which apply.

II. Background

The NSR provisions of part C [prevention of significant deterioration (PSD)] and part D (nonattainment requirements) of title I of the Clean Air Act (Act) apply to both the construction of major new sources and the modification of existing major sources.[1] The modification provisions of the NSR programs in parts C and D are based on the broad definition of modification in section 111(a)(4) of the Act. That section contemplates a two-step test for determining whether activities at an existing major facility constitute a modification subject to new source requirements. In the first step, the reviewing authority determines whether a physical or operational change will occur. In the second step, the question is whether the physical or operational change will result in any increase in emissions of any regulated pollutant.

The definition of physical or operational change in section 111(a)(4) could, standing alone, encompass the most mundane activities at an industrial facility (even the repair or replacement of a single leaky pipe, or a insignificant change in the way that pipe is utilized). However, EPA has recognized that Congress did not intend to make every activity at a source subject to new source requirements under parts C and D. As a result, EPA has by regulation limited the reach of the modification provisions of parts C and D to only major modifications. Under NSR, a "major modification" is generally a physical change or change in the method of operation of a major stationary source which would result in a significant net emissions increase in the emissions of any regulated pollutant

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[1]The EPA's NSR regulations for nonattainment areas are set forth at 40 CFR 51.165, 52.24 and part 51, Appendix S. The PSD program is set forth in 40 CFR 52.21 and 51.166.

[see, e.g., 40 CFR 52.21(b)(2)(i)]. A "net emissions increase" is defined as the increase in "actual emissions" from the particular physical or operational change together with any other contemporaneous increases or decreases in actual emissions [see, e.g., 40 CFR 52.21(b)(3)(i)]. In order to trigger major new source review, the net emissions increase must exceed specified "significance" levels [see, e.g., 40 CFR 52.21(b)(2)(i) and 40 CFR 52.21(b)(23)]. The EPA has also adopted common-sense exclusions from the "physical or operational change" component of the definition of "major modification." For example, EPA's regulations contain exclusions for routine maintenance, repair, and replacement; for certain increases in the hours of operation or in the production rate; and for certain types of fuel switches [see, e.g., 40 CFR 52.21(b)(2)(iii)].

In the 1992 "WEPCO" rulemaking [57 FR 32314], EPA amended its PSD and nonattainment NSR regulations as they pertain to utilities by adding certain pollution control projects to the list of activities excluded from the definition of physical or operational changes. In taking that action, EPA stated it was largely formalizing an existing policy under which it had been excluding individual pollution control projects where it was found that the project "would be environmentally beneficial, taking into account ambient air quality" [57 FR at 32320; see also id., n. 15].[2]

The EPA has provided exclusions for pollution control projects in the form of "no action assurances" prior to November 15, 1990 and nonapplicability determinations based on Act changes as of November 15, 1990 (1990 Amendments). Generally, these exclusions addressed clean coal technology projects and fuel switches at electric utilities.

Because the WEPCO rulemaking was directed at the utility industry which faced "massive industry-wide undertakings of pollution control projects" to comply with the acid rain provisions of the Act [57 FR 32314], EPA limited the types of projects eligible for the exclusion to add-on controls and fuel switches at utilities. Thus, pollution control projects under the WEPCO rule are defined as:

> any activity or project undertaken at an existing electric utility steam generating unit for purposes of reducing emissions from such unit. Such activities or projects are limited to:

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[2]This guidance pertains only to source categories other than electric utilities, and EPA does not intend for this guidance to affect the WEPCO rulemaking in any way.

> (A) The installation of conventional or innovative pollution control technology, including but not limited to advanced flue gas desulfurization, sorbent injection for sulfur dioxide (SO_2) and nitrogen oxides (NO_x) controls and electrostatic precipitators;
>
> (B) An activity or project to accommodate switching to a fuel which is less polluting than the fuel in use prior to the activity or project . . .

[40 CFR 51.165(a)(1)(xxv) (emphasis added)]. The definition also includes certain clean coal technology demonstration projects. Id.

The EPA built two safeguards into the exclusion in the rulemaking. First, a project that meets the definition of pollution control project will not qualify for the exclusion where the "reviewing authority determines that (the proposed project) renders the unit less environmentally beneficial . . ." [see, e.g., 51.165(a)(1)(v)(C)(8)]. In the WEPCO rule, EPA did not provide any specific definition of the environmentally-beneficial standard, although it did indicate that the pollution control project provision "provides for a case-by-case assessment of the pollution control project's net emissions and overall impact on the environment" [57 FR 32321]. This provision is buttressed by a second safeguard that directs permitting authorities to evaluate the air quality impacts of pollution control projects that could--through collateral emissions increases or changes in utilization patterns--adversely impact local air quality [see 57 FR 32322]. This provision generally authorizes, as appropriate, a permitting authority to require modelling of emissions increases associated with a pollution control project. Id. More fundamentally, it explicitly states that no pollution control project under any circumstances may cause or contribute to violation of a national ambient air quality standard (NAAQS), PSD increment, or air quality related value (AQRV) in a class I area. Id.[3]

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[3]The WEPCO rule refers specifically to "visibility limitation" rather than "air quality related values." However, EPA clearly stated in the preamble to the final rule that permitting agencies have the authority to "solicit the views of others in taking any other appropriate remedial steps deemed necessary to protect class I areas. . .. The EPA emphasizes that all environmental impacts, including those on class I areas, can be considered. . .." [57 FR 32322]. Further, the statutory protections in section 165(d) plainly are intended to protect against any "adverse impact on the AQRV of such [class I] lands

As noted, the WEPCO rulemaking was expressly limited to existing electric utility steam generating units [see, e.g., 40 CFR 51.165(a)(1)(v)(C)(8) and 51.165(a)(1)(xx)]. The EPA limited the rulemaking to utilities because of the impending acid rain requirements under title IV of the Act, EPA's extensive experience with new source applicability issues for electric utilities, the general similarity of equipment, and the public availability of utility operating projections. The EPA indicated it would consider adopting a formal NSR pollution control project exclusion for other source categories as part of a separate NSR rulemaking. The rulemaking in question is now expected to be finalized by early 1996. On the other hand, the WEPCO rulemaking also noted that EPA's existing policy was, and would continue to be, to allow permitting authorities to exclude pollution control projects in other source categories on a case-by-case basis.

III. Case-By-Case Pollution Control Project Determinations

The following sections describe the type of projects that may be considered by permitting authorities for exclusion from major NSR as pollution control projects and two safeguards that permitting authorities are to use in evaluating such projects--the environmentally-beneficial test and an air quality impact assessment. To a large extent, these requirements are drawn from the WEPCO rulemaking. However, because the WEPCO rule was designed for a single source category, electric utilities, it cannot and does not serve as a complete template for this guidance. Therefore, the following descriptions expand upon the WEPCO rule in the scope of qualifying projects and in the specific elements inherent in the safeguards. These changes reflect the far more complicated task of evaluating pollution control projects at a wide variety of sources facing a myriad of Federal, State, and local clean air requirements.

Since the safeguards are an integral component of the exclusion, States must have the authority to impose the safeguards in approving an exclusion from major NSR under this policy. Thus, State or local permitting authorities in order to use this policy should provide statements to EPA describing and affirming the basis for its authority to impose these safeguards absent major NSR. Sources that obtain exclusions from permitting authorities that have not provided this affirmation of authority are at risk in seeking to rely on the exclusion issued by the

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(including visibility)." Based on this statutory provision, EPA believes that the proper focus of any air quality assessment for a pollution control project should be on visibility and any other relevant AQRV's for any class I areas that may be affected by the proposed project. Permitting authorities should notify Federal Land Managers where appropriate concerning pollution control projects which may adversely affect AQRV's in class I areas.