

# REQUEST

for

## Proposals

### Marketing and Promotion of GRADE+

(Grants to Replace Aging Diesel Engines)

UPON REQUEST THIS INFORMATION IS AVAILABLE IN AN ALTERNATIVE FORMAT FOR  
PERSONS WITH DISABILITIES



May 26, 2009

**SUBMISSION DEADLINE: JUNE 5, 2009**

## **I. INTRODUCTION**

Mecklenburg County Air Quality (MCAQ) is seeking a qualified firm to market a grant opportunity to eligible applicants including specifically those in the construction, agricultural, industrial, and transportation industries. The firm retained under this Request for Proposals will be awarded a two month contract to produce a contact database, produce necessary promotional pieces and design and execute a promotion plan for GRADE+.

Mecklenburg County Air Quality is a local air quality agency whose goal is to improve ambient air quality and reduce exposure to unhealthy airborne pollutants. The program strives to maintain and make progress towards attainment of National Ambient Air Quality Standards and to protect the public by limiting and reducing emissions, by promoting pollution prevention, by minimizing and limiting nuisance air pollutants, by disseminating air quality data and information, and by providing local leadership for air quality issues.

## **II. BACKGROUND & PURPOSE**

Mecklenburg County Air Quality (MCAQ) recently received funding from the American Recovery and Reinvestment Act (Recovery Act) to expand and enhance its successful GRADE (Grants to Replace Aging Diesel Engines) project. For 2 years, MCAQ has administered GRADE, a sub-grant program, to provide incentive funding to organizations that replace, repower, or retrofit their heavy-duty nonroad construction equipment. With Recovery Act funding through MCAQ will enhance this already successful project by:

- Expanding beyond just construction equipment to include all nonroad diesels (construction, agricultural, industrial, commercial etc.)
- Expanding the eligible region from 7 counties in North Carolina to 13 counties in both North and South Carolina (EPA's presumptive non-attainment boundary for the 2008 ozone standard)
- Adding highway diesel vehicles
- Including stationary diesel generators, engines and pumps

See Appendix A for full Recovery Act funding application and details about the GRADE+ project.

The purpose of this Request for Proposals (RFP) is to **solicit proposals for providing services to ensure that the GRADE+ grant opportunity is properly promoted to all eligible organizations and to maximize the number of eligible applications submitted.** A portion of the Recovery Act funding is to be used specifically for identifying, targeting, promoting and contacting public and private entities eligible for GRADE+'s expanded scope. We believe that marketing expertise will result in a greater number, variety, and geographic distribution of applications, more awareness throughout the region and will allow us to shorten the time period that applications are accepted.

## **III. SCOPE OF SERVICES**

MCAQ desires to contract with a marketing firm that can demonstrate successful marketing and market research experience within the heavy equipment, industrial equipment, construction and/or transportation sectors.

The Contractor will ensure the successful promotion of GRADE+ to owners of:

- offroad diesel equipment
- on-road heavy diesel equipment
- stationary diesel equipment

This will include public, private and non-profit organizations in the 13 county region listed below.

|                 |              |               |               |
|-----------------|--------------|---------------|---------------|
| Anson, NC       | Cabarrus, NC | Chester, SC   | Cleveland, NC |
| Gaston, NC      | Iredell, NC  | Lancaster, SC | Lincoln, NC   |
| Mecklenburg, NC | Rowan, NC    | Stanly, NC    | Union, NC     |
| York, SC        |              |               |               |

A successful proposal will, at a minimum, specify performance of the following functions:

1. Develop a targeted, comprehensive, contact database/mailling list based on expanded scope of GRADE+.
2. Produce necessary promotional pieces
3. Design and execute a promotion plan for GRADE+ for reaching the largest target audience possible.

### **Develop Contact Database**

MCAQ has determined through air quality models and data from the Charlotte Department of Transportation that there are an estimated 50,079 nonroad diesels (mobile and stationary) and 55,000 highway heavy duty diesels.(see Appendix B) in the 13 county region. The successful firm will develop a database of quality contacts that make decisions about equipment maintenance and purchases within companies that own these types of diesel equipment/vehicles. The database will include sufficient contacts to yield a minimum of 100 applications submitted to MCAQ.

### **Produce Necessary Promotional Pieces**

The Contractor will produce the necessary literature, mailers etc. needed to execute the promotion of GRADE+. The materials should be professional quality and should appeal to potential applicants. However, this is not an advertising project and the amount of time and money spent on collateral design and branding should be kept to a minimum. See attachment C for examples of past mailers that were created internally by MCAQ staff.

### **Design and Execute Promotional Plan**

To successful fulfill the purpose of this RFP, the Contractor will determine the most effective method of promoting GRADE+ to potential applicants. MCAQ expects a combination of direct mail, email and phone calls at a minimum. This is not an RFP for a media buy and MCAQ is not interested in purchasing radio or television advertisements. The successful Contractor will focus on targeted, direct marketing.

The Contractor must reach a minimum of:

- 500 owners of agricultural equipment,
- 1000 owners of stationary diesel engines,
- 1000 owners of construction equipment and
- 1000 owners of highway heavy duty diesel vehicles

A successful promotional plan will result in at least 100 GRADE+ applications submitted to MCAQ with at least 5 applications from each of the 13 eligible counties.

## **IV. SUBMITTAL REQUIREMENTS**

Please take note of the following very important requirements:

- **All materials shall be submitted electronically** in Adobe Acrobat PDF format (preferably in one file) by the date indicated in the schedule below. No printing, binding or other paper handling is required by the consultant. **Paper submittals will not be accepted.**
- Submittals may be color or black/white; they should be concise and to the point. Submittals are limited to a maximum of **20 pages** inclusive of the cover letter.
- Clearly list the primary contact with email address, telephone number and mailing address.
- Scanned signatures shall be valid for this submittal. E-mail routing and IP information will be logged to verify authenticity and becomes a part of your submittal signature as well as date-time logging.
- If applicable, clearly disclose the firm's or team member's potential conflict of interest for this project; include (1) present or prior relationships, (2) work in same or different discipline, (3) work in local area or elsewhere, (4) work as prime or sub-consultant., etc.
- Joint Ventures will not be permitted under this contract. Each Proposal submitted must designate a firm that will be solely under contract with, and report directly to, MCAQ.

The submission shall address each of the following:

### **PROJECT APPROACH**

A brief description of firm's understanding of, and approach to the tasks. Include a proposed scope of services listing specific anticipated work tasks.

### **SIMILAR EXPERIENCE**

In detail, describe the past experience of your firm with similar projects. Include specific projects, names and description of the work completed, client names and individuals with telephone numbers of three (3) individuals to contact for references.

### **PROJECT TEAM**

Provide a graphical representation of your team (organizational chart), including the firm's name, individuals involved (and their primary office location) and the role they will perform. Provide a description of the qualifications and experience of the specific individuals that will be involved in this project. Identify their experience with similar type projects.

### **COST**

Provide a total project budget and assign a cost to each of the individual tasks, (database development, promotional materials, and plan design/execution) The budget must include hourly rates by staff position and other anticipated out-of-pocket expenses as part of the total figure.

## **V. ANTICIPATED SCHEDULE**

All submittals received by the deadline will be evaluated. Submittals received after the deadline will not be evaluated.

### **June 5, 2009**

Week of June 8, 2009

June 12, 2009

July 1, 2009 – August 31, 2009

### **Proposal submittal deadline**

Selection Committee reviews & interviews (if necessary)

Contract awarded

GRADE+ applications accepted (can be extended beyond 8/31)

Proposals are to be received by Mecklenburg County Air Quality **no later than 2:00 PM on the Submission deadline indicated above**. The Selection Committee will review all submittals received by the deadline. Submittals received after the deadline will not be reviewed. The County has a 5MB limit on e-mail attachments. Submittals must be e-mailed to Alan Giles at:

[Alan.Giles@MecklenburgCountyNC.gov](mailto:Alan.Giles@MecklenburgCountyNC.gov)

Consultants may send a CD-ROM or USB Flash Drive of their submittal to:

Mecklenburg County Air Quality  
700 North Tryon Street  
Charlotte, North Carolina 28202  
**Attention: Alan Giles**

Questions regarding this RFP should be directed to Alan Giles, Senior Environmental Specialist, Mecklenburg County Air Quality. 704-336-5836 or [Alan.Giles@MecklenburgCountyNC.gov](mailto:Alan.Giles@MecklenburgCountyNC.gov).

- **Consultants are strongly encouraged to test-submit proposals to themselves to review format and integrity of the submittal. Submittals that cannot be opened or are otherwise corrupt will not be evaluated.**
- **Consultants are strongly encouraged not to wait until the deadline. Submittals that are received after the deadline due to Internet delays, firewalls, large file delivery times, etc. will not be considered.**
- **Consultants will receive an e-mail confirmation upon receipt and successful opening of their submittal including that submittal was received before the deadline.**

A selection committee comprised of representatives from Mecklenburg County Land Use and Environmental Services will review all proposals. Selection committee may short-list firms for one-on-one interviews.

## **VI. SELECTION CRITERIA**

The selection of the Contractor shall be based on proposal information exhibited in both written and graphic form and personal interviews (if conducted). Criteria for selection will include, but not necessarily be limited to the following:

- The approach presented to secure quality applications for GRADE+
- Relevant experience of the same or similar type of work.
- Cost
- Reference checks.

## **IX. MISCELLANEOUS PROJECT REQUIREMENTS**

### **A. MINORITY/WOMEN BUSINESS ENTERPRISE**

It is the policy of Mecklenburg County to provide minorities and women equal opportunity for participating in all aspects of the County's contracting and procurement programs, including but not limited to employment, construction development projects, and materials/services, consistent with the laws of the State of North Carolina. The policy of Mecklenburg County prohibits discrimination against any person or business in pursuit of these opportunities on the basis of race, color, national origin, religion, sex, age, disability, or veteran's status. It is further the policy of Mecklenburg County to conduct its contracting and procurement programs so as to prevent such discrimination and to resolve any and all claims of such discrimination.

### **B. ADA COMPLIANCE**

Mecklenburg County will comply with the Americans with Disabilities Act (ADA) which prohibits discrimination on the basis of a disability. Mecklenburg County will make reasonable accommodations in all programs to enable participation by an individual with a disability who meets essential eligibility requirements. Mecklenburg County programs will be available in the most integrated setting for each individual. If any accommodations are necessary for participation in any program or services, participants are encouraged to notify County Staff.

### **C. INDEMNITY AND INSURANCE REQUIREMENTS**

To the extent permitted by law, the Consultant shall indemnify and save harmless Mecklenburg County, its officers, agents, employees and assigns from and against all loss, cost, damages, expense and liability caused by an accident or other occurrence resulting in bodily injury, including death, sickness and disease to any person; or damage or destruction to property, real or personal; arising directly or indirectly from operations, products or services rendered or purchased under this contract.

The Consultant further agrees to purchase and maintain during the life of this contract with an insurance company acceptable to Mecklenburg County, authorized to do business in the State of North Carolina the following insurance:

- **AUTOMOBILE LIABILITY** - Bodily injury and property damage liability covering all owned, non owned, and hired automobiles for limits of not less than \$1,000,000 bodily injury each person, each accident and \$1,000,000 property damage or \$1,000,000 combined single limit bodily injury and property damage.
- **COMMERCIAL GENERAL LIABILITY** - Bodily injury and property damage liability as shall protect the contractor and any subcontractor performing work under this contract from claims of bodily injury or property damage which arises from operation of this contract whether such operations are performed by contractor, any subcontractor or anyone directly or indirectly employed by either. The amounts of such insurance shall not be less than \$1,000,000 bodily injury each occurrence/aggregate and \$1,000,000 property damage each occurrence/aggregate or \$1,000,000 bodily injury and property damage combined single limits each occurrence/aggregate. This insurance shall include coverage for products/completed operations, personal injury liability and contractual liability.
- **WORKERS' COMPENSATION** - Meeting the statutory requirements of the State of North Carolina. Employers Liability - \$100,000 per accident limit, \$500,000 disease per policy limit, \$100,000 disease each employee limit.

Certificates of such insurance will be furnished and shall contain the provision that Mecklenburg County will be given 30 days written notice of any intent to amend or terminate by either the consultant or the insuring company.

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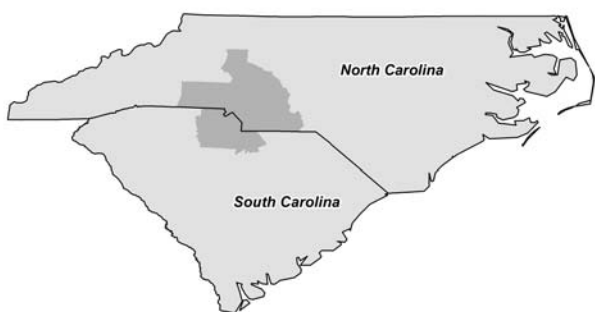
## List of Appendices

Appendix A: GRADE+ Application to US Environmental Protection Agency for Recovery Act funds.

Appendix B: Description of Target Fleet

Appendix C: Previous GRADE promotional pieces.

## Appendix A: GRADE+ Application to US Environmental Protection Agency for Recovery Act funds



# **GRADE +**

## **Grants to Replace Aging Diesel Engines** **A Bi-State, Multi-County Public/Private Partnership** **to Reduce NOx from** **Stationary, Highway and Offroad Engines**

April 21, 2009

**Applicant:** Mecklenburg County Air Quality

**Address:** 700 North Tryon Street  
Charlotte, NC 28202

**Contact:** Alan Giles, Senior Environmental Specialist or  
Leslie Rhodes, Program Manager

**Phone:** 704-336-5430

**Fax:** 704-336-4391

**Email:** [Alan.Giles@MecklenburgCountyNC.gov](mailto:Alan.Giles@MecklenburgCountyNC.gov) or  
[Leslie.Rhodes@MecklenburgCountyNC.gov](mailto:Leslie.Rhodes@MecklenburgCountyNC.gov)

**Eligibility:** Mecklenburg County Air Quality is a local government agency with jurisdiction over air quality in Mecklenburg County, North Carolina.

**Funding Requested:** \$1,116,600

**Total Project Cost:** \$2,233,200

**Other Funding:** \$ 1,116,600 cost-share  
from sub-grant recipients

**Project Period:** June 2009-September 2010

**Multiple Projects:** None submitted under this RFA



## **GRADE+**

### **Reducing Offroad, Highway and Stationary Diesel Engine Emissions**

Mecklenburg County Air Quality (MCAQ) is seeking funding to **expand and enhance** its successful GRADE (Grants to Replace Aging Diesel Engines) project. For 2 years, MCAQ has administered a sub-grant program to provide incentive funding to organizations that replace, repower, or retrofit their heavy-duty nonroad construction equipment. With Recovery Act funding through DERA, MCAQ proposes to enhance an already successful project by:

- Expanding beyond just construction equipment to include all nonroad diesels (construction, agricultural, industrial, commercial etc.)
- Expanding the eligible region from 7 counties in North Carolina to 13 counties in both North and South Carolina (EPA's presumptive non-attainment boundary for the 2008 ozone standard)
- Adding highway diesel vehicles
- Including stationary diesel generators, engines and pumps
- Renaming it GRADE+ to emphasize the expansion

| <b>GRADE Compared with GRADE+</b>      |                                        |                                                                                                                                                         |
|----------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eligibility</b>                     | <b>2007/2008 GRADE</b>                 | <b>GRADE+ (expanded w/ stimulus funding)</b>                                                                                                            |
| Equipment Types                        | Nonroad diesel construction            | - All nonroad diesel equipment including agricultural, industrial, construction etc.<br>- All stationary diesel engines<br>- All highway diesel engines |
| Geographical Area                      | 7-county NC ozone nonattainment region | 13 county bi-state presumptive nonattainment region for 2008 ozone standard                                                                             |
| Estimated Pieces of Eligible Equipment | 20,607 TOTAL                           | 105,079 TOTAL<br>50,079 nonroad diesels (mobile and stationary) <sup>1</sup><br>55,000 highway heavy duty diesels <sup>2</sup>                          |

GRADE+ is a project well-suited to the purposes of Recovery Act funding because

- It is an expansion of a PROVEN successful air pollution reduction strategy.
- MCAQ has the experience and expertise to spend the funding quickly and effectively.
- Real, quantifiable, and much needed NOx reductions are guaranteed.
- Jobs will be created by the expenditure of the funding but will also be preserved by helping avoid the unintended economic consequences of nonattainment on our area.
- GRADE+ is supported by staff and political leaders in the 13-county region represented by Centralina Council of Governments and Catawba Council of Governments.

### **SECTION 1: GRADE + PROJECT SUMMARY**

#### ***Evaluation Criteria Highlights***

- ✓ 145 tons of NOx reductions expected from repowers and replacements
- ✓ Verified of certified technologies required by GRADE+
- ✓ Over 100,000 public and privately owned equipment and engines will be eligible
- ✓ Engines must have 5 years of useful life left but be old enough to demonstrate high cost effectiveness.
- ✓ Roles/responsibilities for MCAQ and GRADE+ sub-grant recipients clearly defined.
- ✓ Funding dispersed and projects in place no later than September 2010.
- ✓ GRADE+ projects required by contract to sustain benefits for minimum of 5 years.
- ✓ "Restriction for Mandated Measures" requirements met by GRADE+
- ✓ Create 15 jobs and preserve additional jobs by achievement of attainment

<sup>1</sup> Data generated using EPA's NONROAD model.

<sup>2</sup> Mecklenburg County data provided by DMV, other counties estimated based on population comparison to Mecklenburg

## 145 tons of NOx reductions expected from repowers and replacements

GRADE- Grants to Replace Aging Diesel Engines is an existing sub-grant program that has successfully funded over \$900,000 in repowers and replacements of nonroad diesel construction equipment over the past two years (Appendix A). Based on applications received in the first two years of GRADE, MCAQ's expected cost effectiveness for GRADE+ is approximately \$7,000 per ton NOx. Therefore, with \$1,025,000 approximately 145 tons of NOx can be eliminated over the life of the repowers/replacements (5 – 10 years). These emission reductions will likely extend past the 5-year time frame, making the 145 ton estimate a conservative one.

Other pollutants will also be reduced by GRADE+, especially particulate matter. However, while these pollutants are considered, GRADE+ awards are made based on NOx benefits.

NOx reductions for GRADE+ projects funded by DERA will be calculated by MCAQ staff using the TERP (Texas Emission Reduction Program) model as they were in 2007 and 2008, providing a high degree of quality assurance and control. Below are example calculations from GRADE 2007. (Projects are all required to have a lifetime of 5 years. All benefit calculations are based on a 5 year lifetime.)

### Example Calculations for GRADE Projects

| Equipment Type | Annual Hrs | Old EF g/b.hp.hr | HP  | New EF g/b.hp.hr | load factor | Current Annual Emissions | Repower Annual Emissions | % Reduction | Annual Tons NOx | Project Tons NOx |
|----------------|------------|------------------|-----|------------------|-------------|--------------------------|--------------------------|-------------|-----------------|------------------|
| Loader         | 1800       | 9.3              | 220 | 6.9              | 0.59        | 2.39                     | 1.78                     | 0.26        | 0.62            | 3.09             |
| Excavator      | 1500       | 9.3              | 250 | 6.9              | 0.59        | 2.27                     | 1.68                     | 0.26        | 0.59            | 2.93             |
| Grader         | 1700       | 9.5              | 135 | 6.9              | 0.59        | 1.42                     | 1.03                     | 0.27        | 0.39            | 1.94             |
| Dozer          | 1500       | 9.3              | 285 | 6.9              | 0.59        | 2.58                     | 1.92                     | 0.26        | 0.67            | 3.34             |

### Expected NOx Reduction Calculations

| Repowers                               |           | Replacements                               |           |
|----------------------------------------|-----------|--------------------------------------------|-----------|
| Average repower cost                   | \$37,000  | Average replacement cost                   | \$160,000 |
| 75%(reimbursement)                     | \$27,750  | 25%(reimbursement)                         | \$40,000  |
| Funds budgeted for repowers            | \$900,000 | Funds budgeted for replacements            | \$125,000 |
| # repowers projected                   | 32        | # of replacements projected                | 3         |
| Average NOx reduced per repower (tons) | 3.35      | Average NOx reduced per replacement (tons) | 11.5      |
| Total NOx reductions projected         | 108.65    | Total NOx reductions projected             | 35.94     |

**Total Project NOx Reductions (tons) 145**

### Verified or certified technologies required by GRADE

GRADE+ will fund projects that replace old, high-emitting diesel engines with newer engines that are certified by EPA or CARB to meet a more stringent emission standard. The following reduction solutions are eligible:

- Verified Retrofit Technologies
- Engine Upgrades
- Certified Engine Repowers
- Certified Vehicle and Equipment Replacements

Projects that propose to retrofit engines or install and upgrade kit must use EPA or CARB verified retrofit technologies. Additionally, In order to be eligible for GRADE funding, an applicant must certify by contract with MCAQ that they meet the following criteria:

- The equipment has been operated at least 75% of the time an eligible County for the past 2 years
- The old engine/equipment has at least 5 years of useful life remaining
- The equipment will continue to operate in a similar capacity for 75% of the time in an eligible county over the next 5 years

- The engines being replaced must be permanently destroyed or recycled for parts
- The new engine must meet a more stringent emission standard than the engine being replaced
- The replacement engine must be of an equivalent horsepower range
- Equipment owners must pay at least 25% of the project cost for a vehicle engine repower and 75% of the cost of replacements

### Over 100,000 public and privately owned equipment and engines will be eligible

By increasing the GRADE eligibility both geographically and with respect to usage, MCAQ will be able to target 400% more engines than in previous funding cycles. The table below was generated using EPA's NONROAD model and shows the top 15 diesel NOx producers in the offroad sector for the Charlotte region. All would be eligible and specifically targeted through marketing efforts.

| <b>NonRoad Diesel Equipment in 13-County, Bi-State Region (NC/SC)</b><br>(Ranked by Annual NOx Emissions) |                           |                         |                                  |                        |
|-----------------------------------------------------------------------------------------------------------|---------------------------|-------------------------|----------------------------------|------------------------|
| <b>Classification</b>                                                                                     | <b>Equipment</b>          | <b>Total Population</b> | <b>Total Fuel (gallons/year)</b> | <b>NOx (tons/year)</b> |
| Construction Equipment                                                                                    | Rubber Tire Loaders       | 1,938                   | 11,092,447                       | 1,172.7                |
| Construction Equipment                                                                                    | Crawler Tractor/Dozers    | 1,346                   | 10,146,848                       | 1,004.1                |
| Construction Equipment                                                                                    | Excavators                | 1,751                   | 10,187,285                       | 903.8                  |
| Construction Equipment                                                                                    | Off-highway Trucks        | 220                     | 8,708,548                        | 882.7                  |
| Construction Equipment                                                                                    | Tractors/Loaders/Backhoes | 4,672                   | 6,746,360                        | 779.4                  |
| Agricultural Equipment                                                                                    | Agricultural Tractors     | 2,541                   | 5,030,012                        | 595.8                  |
| Construction Equipment                                                                                    | Skid Steer Loaders        | 7,270                   | 4,631,699                        | 529.0                  |
| Commercial Equipment                                                                                      | Generator Sets            | 6,866                   | 2,741,004                        | 334.5                  |
| Construction Equipment                                                                                    | Rough Terrain Forklifts   | 1,556                   | 3,262,674                        | 326.1                  |
| Industrial Equipment                                                                                      | AC\Refrigeration          | 1,879                   | 2,862,269                        | 274.3                  |
| Construction Equipment                                                                                    | Scrapers                  | 237                     | 2,734,245                        | 268.0                  |
| Construction Equipment                                                                                    | Cranes                    | 456                     | 2,326,932                        | 254.0                  |
| Construction Equipment                                                                                    | Rollers                   | 1,116                   | 2,514,689                        | 242.6                  |
| Industrial Equipment                                                                                      | Forklifts                 | 534                     | 2,807,621                        | 230.4                  |
| Construction Equipment                                                                                    | Graders                   | 418                     | 2,535,778                        | 227.3                  |
| Total                                                                                                     |                           | 32,800                  | 78,328,411                       | 8,025                  |

By including highway diesel in GRADE+, an additional 55,028 vehicles will be eligible. The North Carolina Division of Motor Vehicles provided the number of heavy duty diesel vehicles in Mecklenburg County and population data was used to estimate the opportunities in the other 12 counties.

### Engines must have 5 years of useful life left but be old enough to demonstrate high cost effectiveness.

MCAQ has determined that GRADE+ eligible equipment must meet this requirement which is 3 years longer than EPA's minimum requirement. Applicants must have a qualified third party mechanic certify that their engine/equipment meets these requirements.

### Roles and responsibilities for MCAQ and GRADE+ sub-grant recipients clearly defined.

Mecklenburg County Air Quality will be administering GRADE+.

| <b>Highway Diesel Equipment in 10-County, Bi-State Region (NC/SC)</b> |                                     |
|-----------------------------------------------------------------------|-------------------------------------|
| <b>County</b>                                                         | <b>Estimated Number of Vehicles</b> |
| Mecklenburg, NC                                                       | <b>20,957</b>                       |
| York, SC                                                              | 5,117                               |
| Gaston, NC                                                            | 4,864                               |
| Union, NC                                                             | 4,548                               |
| Cabarrus, NC                                                          | 3,971                               |
| Iredell, NC                                                           | 3,656                               |
| Rowan, NC                                                             | 3,276                               |
| Cleveland, NC                                                         | 2,330                               |
| Lancaster, SC                                                         | 1,787                               |
| Lincoln, NC                                                           | 1,759                               |
| Stanly, NC                                                            | 1,403                               |
| Chester, SC                                                           | 768                                 |
| Anson, NC                                                             | 592                                 |
| Total                                                                 | 55,028                              |

This involves the following tasks:

- Using existing application forms and guidelines
- Announcing a call for projects (already scheduled because of existing funding)
- Calculating emission reductions from proposed projects
- Convening the project selection committee comprised of appropriate stake-holders (including but not limited to Centralina and Catawba Councils of Government, the NCDAQ, SCBAQ, Central Piedmont Community College's Heavy Equipment Program and MCAQ)
- Notifying recipients of awards. (template letter exists)
- Processing contracts and reimbursement requests (system already in place)
- Compiling tracking reports and comparing with projected emission reductions
- Conducting at least one on-site audit of each recipient
- Reporting project status to EPA as required and completing a final project report

In order to promote this opportunity to the appropriate target audience, Mecklenburg County Air Quality will secure the services of a marketing firm. Their responsibilities will include the following:

- Develop a targeted, exhaustive mailing list based on expanded scope of GRADE+.
- Design and assist with implementation of an action plan for reaching the largest target audience.

*Sub-grant awardees* will be responsible to all the terms and conditions of the GRADE+ contract with Mecklenburg County Air Quality. These conditions include but are not limited to:

- Full payment for project prior to reimbursement request
- Meeting cost-share requirements
- Certification that the equipment listed in the funding agreement has been operated 75% of the time over the past two years in the eligible counties.
- Operation of the new/repowered/retrofitted equipment 75% of the time in the eligible counties for the next FIVE years after the retrofit/repower/replacement is completed.
- Disposition of the vehicles, equipment and engines being replaced under this agreement by complete destruction or otherwise rendering permanently inoperable by drilling a hole through the engine block. Destruction of the engine can include sending the engine to a remanufacturing facility operated or authorized by the original engine manufacturer.
- Submission of annual usage reports are required and must list hours each of the following thirteen counties: Mecklenburg, Cabarrus, Union, Rowan, Iredell, Lincoln, Gaston, Stanly, Cleveland, Anson, York, Chester, and Lancaster.
- Return of a pro rata share of the reimbursement funds if over the Activity Life, GRADE+-funded equipment is sold, traded, disposed, transferred to another owner, or transferred to another operational location outside of the eligible counties

## Projects in place for the 2010 ozone season

GRADE contracts issued in early 2008 required project completion by the end of 2008. This timely project execution ensures that much needed NOx reductions start immediately. If awarded Recovery Act funds in June 2009, MCAQ will implement the following schedule:

### Project Schedule

|                                             |                                                |
|---------------------------------------------|------------------------------------------------|
| RFP Issued for market research firm         | May 2009*                                      |
| GRADE Guidelines and Forms Reviewed/Updated | May 2009*                                      |
| SEDC Funding Available                      | June 2009                                      |
| Market Research Contract Awarded            | June 2009                                      |
| GRADE Applications Solicited                | July 1, 2009- August, 31 2009                  |
| GRADE Application Review                    | September 1– September 15, 2009                |
| Project Selection Announced                 | September 21, 2009                             |
| Project Implementation                      | October 2009- May 2010                         |
| Incentives Awarded                          | Immediately upon individual project completion |
| Final Project Report Completed              | September 2010                                 |

\*Activity can be completed prior to award with existing MCAQ resources and is not included in propose budget.

## GRADE+ projects required by contract to sustain benefits for minimum of 5 years.

GRADE+ sub-grant recipients can be either public or private entities and are required BY CONTRACT to use their retrofitted or repowered equipment in the non-attainment region for at least the next five years. They are required to submit usage reports to Mecklenburg County Air Quality every six months. If the equipment is sold, a prorated amount of funding must be returned to the GRADE+ project unless the buyer enters into an agreement with the County to fulfill the terms of the original contract period of five years. See Appendix B for sample GRADE contract.

## “Restriction for Mandated Measures” requirements met by GRADE+

No funds awarded under this RFA shall be used to fund the costs of emissions reductions that are mandated under Federal, State or local law.

## SECTION 2: RECOVERY ACT FUNDING PRIORITIES

### Evaluation Criteria Highlights

- ✓ 15 jobs to be created/maintained by GRADE+
- ✓ Achievement of attainment means job preservation
- ✓ GRADE+ set to begin on date of award letter

| Activity                                   | Jobs Created | Calculation Method                   |
|--------------------------------------------|--------------|--------------------------------------|
| Engine/Equipment Purchase and Installation | 14           | MECA Formula                         |
| GRADE+ Project Management                  | 1            | Internal position created/maintained |
| <b>Total</b>                               | <b>15</b>    |                                      |

As seen in the graph below, the Obama Administration calculates that over 3.5 million jobs will be created with the AARA and the two largest industries to be impacted are construction and retail trade, followed closely by manufacturing. These three sectors represent 48% of the job growth is expected. GRADE+ targets all three of these industries by supporting the construction industry as well as engine and equipment manufacturers and dealers.

For this application, MCAQ is using the formula provided by the Manufacturers of Emission Controls Association (MECA) to determine the number of jobs created by purchase of engines/equipment. Using this formula, which builds on the study conducted by Keybridge Research regarding the macroeconomic impacts associated with DERA funding, allows for all projects to be consistently reviewed on their ability to preserve or create jobs and promote economic recovery, and to maximize job creation and economic benefit, as outlined by the RFA.

### MECA Formula:

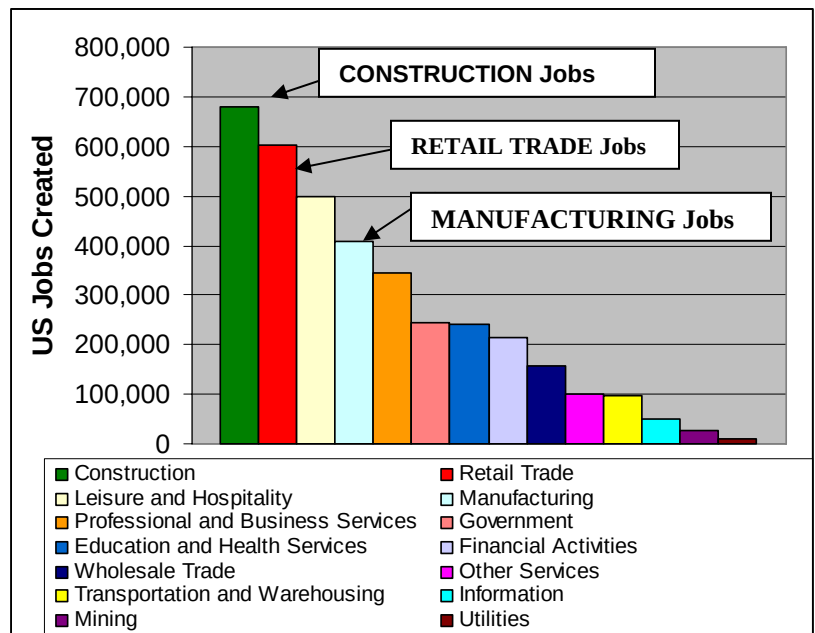
Total Project Cost (in millions) = TPC

Percent of TPC for Retrofit (as a decimal number) = RT

Percent of TPC for Replacement (as a decimal number) = RP

Jobs/Million = (RT) (21.15) + (RP) (14.9) = (.5) (21.25) + (.5) (14.9) = 18.75 jobs/million

Total Jobs = (Jobs/Million) (TPC) = (18.75) (.75) = 14 jobs created by GRADE retrofits/replacement purchases



MCAQ is also requesting \$41,600 to staff 1 FTE for project management. In addition, funding is requested to fund market research assistance from a local firm.

### **Acheivement of Attainment Means Preservation of Jobs**

One inevitable consequence of nonattainment is decreased economic growth based on inability of existing businesses to expand and reluctance of new businesses to locate within the region. Mecklenburg County and the surrounding region has seen businesses choose to move just outside the nonattainment region to avoid costly regulation. Creative solutions such as GRADE+ will help achieve attainment faster, which will allow for existing businesses resume expansion activities and new businesses to locate here.

### **GRADE+ set to begin on date of award letter**

Because MCAQ has previously already administered two GRADE calls for projects, the expanded GRADE+ can begin to put stimulus money into the economy quickly. The following materials have already been developed and are ready to be used:

- Application forms
- Project guidelines
- Reporting/reimbursement forms
- Contracts
- Contract FAQs
- Award selection process (with expanded partners)
- Award letters
- Emission reduction calculators

MCAQ is requesting funds to be used for identifying, targeting, promoting and contacting public and private entities eligible for GRADE+'s expanded scope. We believe that marketing expertise will result in a greater number, variety and geographic distribution of applications, more awareness throughout the region and will allow us to shorten the time period that applications are accepted. MCAQ intends to issue a request for proposals for the marketing assistance in May so that a local firm can be secured immediately upon award of Recovery Act funds.

In order to track and measure progress towards achieving the Recovery Act priorities MCAQ will provide a monthly (or quarterly if preferred by EPA) report detailing the following related measures:

- Amount of funds dispersed to sub-recipients
- Amount of total funds expended
- Job creation reports from MCAQ, sub-grantees, and vendors.

## **SECTION 3: NATIONAL PROGRAMMATIC PRIORITIES**

### ***Evaluation Criteria Highlights***

- ✓ In 2008, Mecklenburg County's "County Line" monitor had the most exceedance days and the greatest 4<sup>th</sup> highest max. in Region 4.
- ✓ GRADE+ type projects - "One of the most cost-effective ways to reduce diesel emissions." according to EPA in a May 2007 review of Mobile Source Control Strategies.
- ✓ 5 year required lifetime within region for certified engines/verified technology

### **In 2008, Mecklenburg County's "County Line" monitor had the most ozone exceedance days and the greatest 4<sup>th</sup> highest max. in EPA Region 4.**

With a current design value of 93ppb and a new, more stringent standard for ozone, Charlotte (one of only 4 areas in Region 4 still violating the 1997 standard) is a critical region for EPA to focus it attention and resources. According to the US Census Bureau's 2008 estimates, over 2.9 million people live in the 13-county region that would be served by GRADE+.

**GRADE+ type projects are “one of the most cost-effective ways to reduce diesel emissions.” according to EPA in a May 2007 review of Mobile Source Control Strategies.**

| Strategy                   | Cost Effectiveness       |
|----------------------------|--------------------------|
| GRADE                      | \$7,000/ton              |
| Truck Stop Electrification | \$19,000/ton             |
| Intersection Improvements  | \$500,000/ton or greater |

Based on our experience with GRADE, MCAQ anticipates GRADE+ funds will achieve a cost effectiveness of approximately \$7,000/ton over the next 5 years. By comparison, the truck stop electrification project that was submitted by MCAQ for CMAQ funding in 2005 was projected to cost \$19,000 per ton. Intersection improvements intended to reduce congestion and thereby improve air quality usually cost more than \$500,000 per ton.

### **5 year required lifetime within region for certified engines/verified technology**

GRADE+ requires by contract that the equipment and new engine be used 75% of the time within the Mecklenburg County non-attainment region for a minimum of 5 years. Recipients are required to report to MCAQ their hours of operation by county every 6 months.

### **SECTION 4: REGIONAL SIGNIFICANCE**

GRADE+ addresses each of the following priorities identified by Region 4:

- Reduces diesel emissions from existing engines and equipment from the agriculture, heavy construction and on-road sectors
- Involves 13-county bi-state region (See Appendix D for letters of support)
- Guarantees long-term sustainability beyond the expiration of the assistance agreement
- Ensures widespread upgrading/retrofitting of nonroad construction equipment

### **SECTION 5: PAST PERFORMANCE – PROGRAMMATIC CAPABILITY AND REPORTING ON RESULTS**

Mecklenburg County Air Quality staff has experience in managing grant funds, cooperative projects with the business community, and retrofit projects.

1. Mecklenburg County Air Quality has successfully implemented and administered EPA grant programs beginning with the CAA Section 105 program in the 70's and the CAA Section 103 (PM 2.5) program beginning in 1997. MCAQ is familiar with the administrative process and has continuously received high ratings for program operations and results for both of these programs
2. Congestion Mitigation and Air Quality Improvement Program-Mecklenburg County received \$500,000 in 2006 to begin a Transportation Demand Program, “Clean Air Works!” The program is a pilot project involving 50 of the region's top employers. The project engages employers in the effort to improve air quality by providing them with tools to help their employees take control of their commutes, and by assisting in retooling operations and maintenance activities to reduce emissions. Reporting requirements outlined in the Congestion Mitigation and Air Quality Improvement Program are being followed.
3. Energy Star - Mecklenburg County received \$5,000 from USEPA- Region 4 for an energy efficiency project. The County is using USEPA's Portfolio Manager to benchmark county-owned office buildings and secondary spaces. Energy use and performance will be compared between facilities. Facilities to be benchmarked will be identified and similar facilities grouped together for comparison. Reporting for this project was included in the County's 105 grant reporting.
4. Southeast Diesel Collaborative – in 2006 Mecklenburg County received \$25,000 from the USEPA– Region 4 for a diesel retrofit project. Mecklenburg County is partnering with Rea Contracting, a local construction company to install flow through diesel particulate filters on construction equipment. Several administrative issues have arisen during the course of this project. They have been documented in quarterly progress reports and are being addressed.

## **SECTION 6: STAFF EXPERTISE AND QUALIFICATIONS**

Because MCAQ is currently administering the existing GRADE subgrants, we are fully prepared to execute GRADE+ quickly and effectively. Our mobile source group formed in 2003 is dedicated to reducing mobile source pollution in our region and is staffed with technical experts that also have experience in sales, economics and communication. This combination of knowledge and experience is perfectly suited to GRADE+ project management and implementation.

Mecklenburg County Air Quality is a local air quality agency whose goal is to improve ambient air quality and reduce exposure to unhealthy airborne pollutants. The program strives to maintain and make progress towards attainment of National Ambient Air Quality Standards and to protect the public by limiting and reducing emissions, by promoting pollution prevention, by minimizing and limiting nuisance air pollutants, by disseminating air quality data and information, and by providing local leadership for air quality issues.

## **SECTION 7: RESULTS—OUTPUTS AND OUTCOMES**

Listed below are the outputs and outcome expected from GRADE+.

| Activity                       | Output                                                    | Outcome                                                                |
|--------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|
| Funding announcement           | 500 owners of agricultural equipment reached              | increased number of applications                                       |
|                                | 1000 owners of stationary diesel engines reached          | increased awareness of repower/replacement strategy                    |
|                                | 1000 owners of construction equipment reached             | increased awareness of mobile source pollution                         |
|                                | 1000 owners of highway heavy duty diesel vehicles reached | increased participation by local businesses in air quality initiatives |
| Marketing consultant contract  | \$100,000 expended on marketing plan/assistance           | shorter funding announcement                                           |
|                                |                                                           | increased number of applications                                       |
|                                |                                                           | preservation of jobs                                                   |
|                                |                                                           | promotion of economic recovery                                         |
|                                |                                                           | increase reach of GRADE+ higher quality applications                   |
| Repower/Retrofit installations | 32 or more repowers completed                             | 145 tons of NOx reduced over next 5 years                              |
|                                | 3 or more replacements completed                          | preservation/creation of jobs                                          |
|                                |                                                           | attainment of 1997 ozone standard                                      |
|                                |                                                           | MCAQ project manager position                                          |
|                                |                                                           | promotion of economic recovery                                         |

The following data will be collected and reported to track progress towards Recovery Act Priorities.

1. Amount of funds dispersed to sub-recipients
2. Amount of total funds expended
3. Job creation reports from MCAQ, sub-grantees, and vendors

Additionally, the following data will be collected and reported to track progress towards Region 4 priorities

4. Number of businesses reached by sector (construction, agricultural, etc.)
5. Number of new applicants to GRADE+
6. Hours of operation of repower/retrofitted equipment (required by GRADE+ contract)
7. Ton of NOx prevented

## **SECTION 8: LEVERAGED RESOURCES AND PROJECT PARTNER**

### **Project Partners And Leveraged Funds**

| <b>Expense</b>                         | <b>DERA</b> | <b>Private Funds (from sub-grantees)</b> |
|----------------------------------------|-------------|------------------------------------------|
| Parts and labor for equipment repowers | \$1,025,000 | \$1,025,000                              |

Through the GRADE application process, Mecklenburg County Air Quality will solicit project partners who own and operate eligible diesel equipment and vehicles. The partners provide at least a 25% cost share for repower projects. After signing a contract with Mecklenburg County, the partners are responsible for completing their repower project. Upon project completion, partners submit project documentation and request reimbursement. Partners then track equipment usage for 5 years and report to Mecklenburg County Air Quality so that emissions can be tracked.

DERA funds will be used to cover up to 75% of the cost of repowering equipment and 25% of the cost of replacing equipment. With \$1,025,000 available through DERA, repower/replacement awards would automatically generate *at least* an additional \$1,025,000.

## **SECTION 9: BUDGET/RESOURCES**

| <b>Sub-award for equipment (Other)</b> | <b>EPA</b>  | <b>Cost Share</b> | <b>Total</b> | <b>Cost Share %</b> |
|----------------------------------------|-------------|-------------------|--------------|---------------------|
| Repower                                | \$900,000   | \$900,000         | \$1,200,000  | 25%                 |
| Replacement                            | \$125,000   | \$125,000         | \$500,000    | 75%                 |
| Total Technology/Installation Funding  | \$1,025,000 | \$1,025,000       | \$2,050,000  | 50%                 |

| <b>Personnel (salaries and wages)</b>      | <b>EPA</b> | <b>Cost Share</b> | <b>Total</b> | <b>Cost Share %</b> |
|--------------------------------------------|------------|-------------------|--------------|---------------------|
| (1) Project Manager @ \$25/hr for 64 weeks | \$32,000   | \$32,000          | \$64,000     | 50%                 |

| <b>Fringe Benefits</b>                                                  | <b>EPA</b> | <b>Cost Share</b> | <b>Total</b> | <b>Cost Share %</b> |
|-------------------------------------------------------------------------|------------|-------------------|--------------|---------------------|
| 30% of salary and wages (FICA, Insurance, 401K/457 match, & Retirement) | \$9,600    | \$9,600           | \$19,200     | 50%                 |

| <b>Contractual</b>   | <b>EPA</b> | <b>Cost Share</b> | <b>Total</b> | <b>Cost Share %</b> |
|----------------------|------------|-------------------|--------------|---------------------|
| Marketing Consultant | \$50,000   | \$50,000          | \$100,000    | 50%                 |

|                      | <b>EPA</b>         | <b>Cost Share</b>  | <b>Total</b>       | <b>Cost Share %</b> |
|----------------------|--------------------|--------------------|--------------------|---------------------|
| <b>PROJECT TOTAL</b> | <b>\$1,116,600</b> | <b>\$1,116,600</b> | <b>\$2,233,200</b> | <b>50%</b>          |

**Project Cost Effectiveness (\$/ton)**                      **\$7,722.73**

## **SECTION 10: TARGET FLEET**

See Appendix D.

## **Appendix C: PREVIOUS GRADE PROMOTIONAL PIECES**

## Attention: Off-Road Construction Equipment Owners

**Reduce Maintenance Costs!**  
**Extend the Life of your Equipment!**  
**Help Reduce Air Pollution!**

**Money** is currently available through the GRADE Project for:



### **Repowers**

*Replacing the engine in an existing piece of equipment with a newer, cleaner engine*

### **Replacements**

*Replacing an old piece of equipment with a newer, cleaner model*

### **Retrofits**

*Adding after-control technology to reduce air pollution*

Call (704)336-5500 or visit <http://airquality.charmeck.org>

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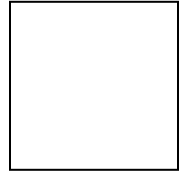
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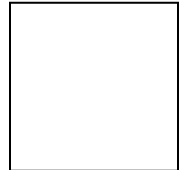
**Mecklenburg County Air Quality**  
**700 North Tryon Street**  
**Charlotte, NC 28202**



Over **\$500,000** is available to reduce harmful air pollution by cleaning up non-road construction equipment operated in the Charlotte region. The “GRADE” (Grants to Replace Aging Diesel Engines) Project is brought to you by Mecklenburg County Air Quality through funding from North Carolina Division of Air Quality and the Mecklenburg Board of County Commissioners.

Contact Dana Etherton of Mecklenburg County Air Quality at (704)336-5500 to find out how to help your company get funding to reduce air pollution and extend the lifetime of your equipment. Or request funding online at <http://airquality.charmeck.org>

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# Grants to Replace Aging Diesel Engines

Improve Air Quality By Cleaning Up Your Construction Equipment!



Over \$250,000 is currently available for:

## Repowers

*Replacing the engine in an existing piece of equipment with a newer, cleaner model*

## Replacements

*Replacing an old piece of equipment with a newer, cleaner model*

## Retrofits

*Adding after-control technology to reduce air pollution*



**Project applications due by 12/31/08.**

Contact *Mecklenburg County Air Quality* at (704) 336-5430 to find out how your company can get funding to reduce air pollution and extend the lifetime of your equipment.

<http://airquality.charmeck.org>



**GRADE**



Mecklenburg County Air Quality invites businesses to apply for funding to pay for replacing, repowering, or retrofitting aging construction equipment. The GRADE (Grants to replace Aging Diesel Engines) Project specifically targets nitrogen oxides (NOx) that contribute to the ground-level ozone problem in the Charlotte region. Any company that operates off-road construction equipment in the North Carolina portion of the Charlotte Non-Attainment Region is eligible for a grant to clean up that equipment. Funding is provided by the Mecklenburg Board of County Commissioners and the North Carolina Division of Air Quality. In 2007, over \$400,000 of project funding was awarded to the following companies:

Blythe Development Company

Culp Brothers Grading

Gaston County Solid Waste & Recycling

Hoopaugh Grading

JO Flowe Grading

McWhirter Grading Company

Okuma America

