

# **Spartanburg – Pine Street MGP Site**

## **WORK PLAN ADDENDUM**

### **PHASE II REMEDICATION**

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Mark E. McGary, P.E  
April 8, 2003

Prepared by:

**Site Remediation Services Group  
Duke Energy - Energy Delivery Services  
6615 Craig Street  
Charlotte NC 28214**

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## 1.0 Introduction

This Work Plan Addendum describes activities to be performed to affect remediation of that area of the Spartanburg – Pine Street MGP Site referred to as Phase II in the original Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan.

### 1.1 Site Location

The Spartanburg – Pine Street MGP Site is located in the vicinity of 686 North Pine Street, in Spartanburg, South Carolina as indicated on Figure 1. Piedmont Natural Gas Company presently owns the majority of the former MGP property which is located in a predominately commercial and industrial section of Spartanburg. The remainder of the site is owned by Duke Energy. The site is bordered to the north by Southern Railway System, to the south by Linder Street, to the west by North Pine Street, and to the east by Fairview Avenue.

### 1.2 Previous Reports

Previous reports submitted to SCDHEC addressing the site include:

- Remedial Investigation Plan for Spartanburg Manufactured Gas Plant
- Remedial Investigation Plan and Phase I Results for Spartanburg Manufactured Gas Plant
- Pine Street, Spartanburg Manufactured Gas Plant Phase 2 Site Assessment Report
- Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan
- Spartanburg Pine Street MGP Site - Groundwater Assessment Report, February 2003

### 1.3 Phase II Area Description and Remedial Action Objectives

The Phase II area of the Spartanburg – Pine Street MGP Site is located in the western portion of the overall site and contains the former Piedmont Natural Gas brick office and warehouse building and the metal garage building. This area is bounded by North Pine Street, Southern Railway and Chinquapin Creek and its tributary. A permitted wastewater treatment facility constructed for the treatment of potentially contaminated stormwater runoff and groundwater generated during remediation of all phases of the Spartanburg MGP site is also located within the Phase II area.

The primary objective of remedial action described in this Work Plan Addendum is to perform removal of MGP impacted contaminated soils from the Phase II area of the Spartanburg – Pine Street MGP Site to ensure that site conditions are protective of human health. Soils within the Phase II area of the site exhibiting contaminant concentrations exceeding the remediation goals established in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan will be removed.

The Phase II area of the site is owned entirely by Piedmont Natural Gas Company. As documented in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan, Piedmont expects to sell their portion of the MGP site. Deed restrictions have been placed on the Piedmont property to ensure that future uses of this property will not be of a residential or agricultural nature.

## **2.0 Remedial Investigation Summary**

The nature and extent of contamination at the Spartanburg – Pine Street MGP site was characterized in 2000 and 2002 by various methods and procedures. The findings of these investigations were documented in the Remedial Investigation Plan and Phase I Results reports for Spartanburg Manufactured Gas Plant (Phase 1 Report) and in the Remedial Investigation Plan and Phase 2 Results for Spartanburg Manufactured Gas Plant (Phase 2 Report).

### **2.1 Soil Contamination Summary**

Characterization of soils at the Spartanburg – Pine Street MGP Site was conducted by Geoprobe® direct-push sampling techniques, by soil boring using a conventional drill rig, and by excavating trenches at the site. In total, soil samples were obtained from 125 locations on the site using the Geoprobe®, from 4 geophysical borings, and from 14 exploratory trenches. A total of 169 samples were submitted for laboratory analyses.

Thirty-one Geoprobe locations (63 through 70, 78 through 95, and 120 through 124), and one geophysical boring (B4) were made within the Phase II area as indicated on Figure 2. Also as indicated on Figure 2, of the 14 exploratory trenches excavated at the site, 4 (trenches 10, 11, 12 and 13) were excavated within the Phase II area.

Total PAHs concentrations are defined as the sum of the concentrations of 17 specific semi-volatile organic compounds indicated in the laboratory analyses using EPA Method 8270. Total Carcinogenic PAHs (CPAH) as benzo(a)pyrene concentrations are defined as the sum of the concentrations of 7 specific carcinogenic PAH compounds factored by their respective carcinogenic potency factors. As documented in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan, the extent of contaminated soil removal is a two-fold approach based on both the concentrations of total PAHs and the concentrations of total carcinogenic PAHs (CPAHs) as benzo(a)pyrene. The lateral extent of near-surface soil removal is predicated on human health risk-based exposure assumptions and, consequently, targets the excavation of those near-surface soils exhibiting total CPAH as benzo(a)pyrene concentrations exceeding 17 ppm. The vertical extent of soil removal is predicated on the prevention or mitigation of impacts to groundwater and, consequently, targets those soils exhibiting total PAH concentrations exceeding 250 ppm.

A summary of EPA Method 8270 total PAH and total CPAH as benzo(a)pyrene soil analytical results from samples collected from within the Phase II area of the site is

reproduced for this Addendum Work Plan and provided in Table 1. As indicated in Table 1, 47 soil samples were collected and submitted for EPA Method 8270 laboratory analyses from the 31 Geoprobe sampling locations and from the 4 exploratory trenches within the Phase II area.

The lateral extent of near-surface soil remedial excavations within the Phase II area will be controlled by those soils exhibiting total CPAH as benzo(a)pyrene (BaP) concentrations greater than 17 ppm. The vertical extent beyond near-surface excavation will be controlled by those soils exhibiting total PAH concentrations greater than 250 ppm. As indicated in Table 1, the following sampling locations indicated results exceeding the remediation targets:

Depth Layer	Sampling Locations Exceeding 17 ppm Total CPAH as BaP	Sampling Locations Exceeding 250 ppm Total PAH
0' to 4'	64, 67, 70, 78, 84 Trench 13 – T20	64, 67, 70, 78, 84 Trench 13 – T20
4' to 8'	68, 87, 92, 94	68, 87, 92, 94
8' to 12'	70, 88, 123	88, 123
12' to 16'	none	None

## 2.2 Exploratory Trench Observations

Conditions observed within exploratory Trenches 10 and 11, excavated near the Southern Railway railroad embankment, indicated cinders and tar type materials in a near-surface layer (surface to 3 feet). Reddish-brown clay soil was observed below 3 feet.

Conditions observed within exploratory Trench 12, excavated just behind and east of the Piedmont Natural Gas office and warehouse building, indicated apparently clean backfill in the upper 3 feet underlain by a layer of possible MGP debris extending to approximately 10 feet deep.

Conditions observed within exploratory Trench 13, excavated near the confluence of Chinquapin Creek and its tributary, indicated debris within the upper 3 feet, underlain by approximately 2 feet of MGP purifier debris. Brownish clay soil was observed below the purifier debris.

## 3.0 Phase II Area Remediation Approach

All site remediation activities to be performed for the Phase II area of the Spartanburg – Pine Street MGP Site will be overseen and managed by Duke Energy Corporation.

### 3.1 Extent of Remedial Excavation

The extent of remedial excavation to be performed within the Phase II area of the Spartanburg – Pine Street MGP Site will be constrained by existing physical features constituting the boundary of the area. These features include the Southern Railway railroad embankment, North Pine Street, and Chinquapin Creek and its tributary.

PAH concentrations exceeding cleanup targets are present in the upper 4 feet of soils along the toe of the railroad embankment indicated by the results from sampling locations 64, 78 and 84; and suggested by observations from exploratory Trenches 10 and 11. Excavation within this area will be constrained to the north by the railroad embankment, to the west by North Pine Street, and to the west by Chinquapin Creek. Remedial excavations within this area will be made to a targeted depth of 4 feet and to the approximate limits indicated on Figure 3. Excavation in this area will not proceed farther north than the existing fence nor the established railroad setback line discussed in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan. This line is based on issues of safety and slope stability dictated by railroad personnel to ensure protection of the railroad embankment. The line is established based on a 2H:1V slope beginning 14 feet horizontally from the actual nearest rail track.

PAH concentrations exceeding cleanup targets are present at various depths across the entire southeastern portion of the Phase II area as indicated by the results from sampling locations 67, 68, 70, 87, 88, 92, 94 and 123; by the results from exploratory Trench 13 sample T20, and suggested by the observations from Trench 13. Excavation within this area will be constrained to the south and east by Chinquapin Creek and its tributary. Remedial excavations within this area will be made to targeted depths ranging from 8 to 12 feet and to the approximate limits indicated on Figure 3.

Remedial excavations are expected to include only limited removal of the Chinquapin Creek tributary streambank as indicated on Figure 3. Limited excavation of the streambank is expected to extend to an approximate depth of 6 feet as indicated to facilitate removal of visible MGP related tar and debris. No additional streambank removal is expected. Both sides of the Chinquapin Creek tributary streambank are concrete paved for approximately 200 feet beginning at the culvert beneath North Pine Street. Excavations made parallel to the concrete wall on the north side of the creek will not be initiated closer than 3 feet from the top of the wall, and will be laid back at a slope no steeper than the slope of the wall.

Remedial excavations along the route of existing sanitary sewer lines will not be made closer than within 4 feet of the top of the pipe. Excavation depths along the sanitary sewer line parallel to Chinquapin Creek will vary from 8 feet to approximately 4 feet to maintain this 4 feet clearance distance.

### 3.2 Material Management

As described in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan, the remedy of choice for the Phase II area of the site will also be excavation and off-site thermal treatment of the impacted soils. As in Phase I, impacted soils will be excavated, screened on-site to separate debris, and transported to the SSR thermal treatment facility in Laurens County, South Carolina for treatment. Screen rejects will be transported to the Waste Management – Piedmont Landfill facility for disposal. Treated soils will be returned to the site and used as backfill. Additional virgin backfill material will be obtained from a local source and brought to the site to account for the volume of material lost through the screening process. Excavations will be backfilled as soon as practical with treated soil or virgin backfill. Backfill will be placed in reasonable lift thicknesses and compacted using available on-site equipment.

Contaminated materials (screened soils and reject debris) stockpiled within the Phase II area will be maintained covered with 4 mil high density polyethylene (HDPE) when not being worked. The HDPE cover will be maintained in good condition. Long term stockpiling of soil is not expected. Due to limited space available for stockpiling within the Phase II area, the rate of excavation will not greatly exceed the rate of shipment to the thermal treatment facility. Water sprays will be used to minimize dust generation, and odor suppressant foam will be maintained on-site for use as needed.

During remediation of the Phase I area of the site, access and egress for trucks used for the shipment of contaminated soils and debris, and for delivery of clean soils back to the site, was made from North Fairview Avenue on the eastern boundary of the site. Although the Phase II area of the site is linked to the Phase I area by an existing bridge across Chinquapin Creek, this bridge is structurally inadequate to support truck and heavy equipment traffic. Consequently access and egress for trucks during remediation of the Phase II area will be made via North Pine Street.

Transportation of excavated materials will be in accordance with DOT regulations. All trucks will be in good condition with no holes or perforations in the body. Prior to leaving the site, loaded trucks will be inspected and the truck tires will be cleaned as necessary to prevent the tracking of materials onto public streets. The trucks will also be securely covered to prevent the spreading of dust during transport.

The transportation of site materials will be documented using typical shipment manifests. Weigh scales on the loading equipment and/or at the thermal desorber site or the landfill will be used to document the amount of material shipped.

### 3.3 Confirmation Sampling

As specified in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan, soil samples will be collected from excavation sidewalls and bottom to record PAH concentrations remaining at the site. One sample will be collected for every 625 square feet of exposed surface in the excavation walls, and one sample will be



collected for every 2500 square feet of exposed surface in the excavation bottom. Additional bottom samples may be taken in areas of highly suspected contamination. Laboratory samples will be analyzed for PAH compounds following EPA Method 8270 or equivalent by Duke Energy Analytical Laboratory, Huntersville, NC, DHEC certification #99005 or other state certified labs.

Verification sampling will be performed on treated and virgin backfill material as stipulated in the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan.

### 3.4 Building Demolition

To facilitate successful remediation of the Phase II area, the existing Piedmont Natural Gas office and warehouse building, along with the existing metal garage building, will be demolished. These buildings have undergone inspection and testing for lead and asbestos containing materials, and these inspection reports are provided in Appendix A. The inspection and testing results indicated some asbestos containing materials within the office and warehouse building. SCDHEC permitted asbestos abatement was performed during March 2003. All required SCDHEC demolition permits will be secured prior to building demolitions. Lead and asbestos testing results for both structures, and asbestos abatement permitting documentation for the office and warehouse building, is provided in Appendix A.

### 3.5 Stormwater Management and Erosion Control

A stormwater management and erosion control plan for remedial activities for the Phase I area of the site was submitted and approved by the City of Spartanburg Engineering Department. This plan will be amended and approved by the City of Spartanburg Engineering Department prior to the initiation of land disturbing activities within the Phase II area.

The objectives of the stormwater management and erosion control plan for the Phase II area will be similar to those employed for the Phase I area. The primary objective of the Phase II area plan will be to ensure the immediate protection of Chiquapin Creek and its tributary from the discharge of potentially contaminated stormwater runoff or contaminated sediments emanating from the Phase II area. This objective will be accomplished by the following practices and procedures:

- a. Stormwater runoff generated and emanating from the Phase II area, and any groundwater collecting with open excavations, will be captured and held within a designated open excavation maintained within the Phase II area. This water will subsequently be pumped into the permitted on-site wastewater treatment facility for treatment prior to discharge to the Spartanburg Sanitary Sewer System. No stormwater runoff generated within the Phase II area that is in contact with contaminated materials will be allowed to discharge directly into surface waters.

- b. Remedial excavations involving the removal of materials constituting the streambank will be performed in a controlled and timely manner. Best management practices will be employed to temporarily redirect streamflow around the area of excavation. These practices may include, but are not limited to, sandbagging, use of inflatable water barriers, temporary damming and piping, or temporary damming and pumping. Following excavation, streambanks will be reconstructed to a stable slope and configuration. Final streambank protection will be ensured by the use of vegetative stabilization, geotextiles, riprap armoring, or other appropriate measures.

Other erosion control practices to be employed include maintaining a clean truck traffic access/egress area to prevent tracking of soils onto public streets, and the use of vegetative stabilization following backfill of excavated areas.

## **4.0 Health and Safety**

The Phase I area Health and Safety Plan (HASP) provided in Appendix B of the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan will be maintained in-force and will apply to all aspects of remediation of the Phase II area. Implementation of the HASP will ensure the health and safety of investigation personnel, office personnel, and nearby residences and businesses. A Health and Safety Officer will be at the site during normal working hours.

### **4.1 Air Monitoring**

Air monitoring will be conducted in the vicinity of the excavation and work areas to measure concentrations of airborne constituents of interest associated with remediation activities including excavation, screening, and truck loading. The air monitoring will consist of both real-time screening and constituent-specific sampling, and will be conducted in addition to, or to supplement the air monitoring requirements described in the site-specific Health and Safety Plan. The Air Monitoring Plan provided in Appendix C of the Spartanburg Manufactured Gas Plant Remediation Phase I - Interim Removal Plan was designed to ensure that site remediation activities do not adversely impact the surrounding area. Additionally, the Air Monitoring Plan in combination with the HASP will ensure the protection of on-site workers. The air monitoring program will be overseen by the Health and Safety Officer.

### **4.2 Access Control**

Access and egress to the Phase II area for truck traffic will be made via North Pine Street through a relocated lockable gate at the entrance to North Pine Street. Access and egress to the Phase II area for on-site personnel will be made primarily from the Phase I area through an existing lockable gate at the light-duty bridge across Chinquapin Creek. All access gates to the site will be locked when there is no site activity. Duke Power security

and the Spartanburg Police will be notified of pending site activities and will periodically patrol the site perimeter.

## **5.0     Schedule**

The proposed scope of soil remediation work for the Phase II area will begin following approval from SCDHEC of this work plan addendum.

## TABLES

**Spartanburg - Pine Street MGP Site**

**Phase II Area - Summary of EPA Method 8270 Analytical Results  
Total PAHs and Total Carcinogenic PAHs as Benzo(a)pyrene**

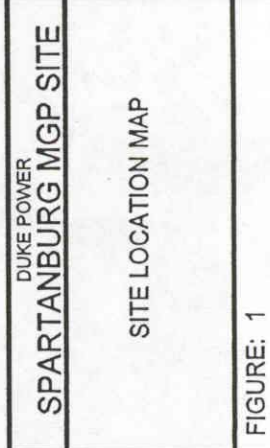
Geoprobe Sampling Locations								
Sample Location	Depth 0'-4'		Depth 4'-8'		Depth 8'-12'		Depth 12'-16'	
	Total CPAHs as B(a)P	Total PAHs	Total CPAHs as B(a)P	Total PAHs	Total CPAHs as B(a)P	Total PAHs	Total CPAHs as B(a)P	Total PAHs
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
63					0.40	3.15		
64	225.40	2,769.0						
65	4.94	40.00			0.43	3.33		
66			0.39	3.06				
67	93.02	1,111.0						
68			75.68	635.5				
69			3.52	27.95				
70	325.18	6,524.0			17.25	214.80		
78	2,657.65	20,700.0						
79	4.80	41.30						
80								
81			1.39	26.20	1.73	61.00		
82			5.47	193.60				
83			1.39	226.10			1.39	10.80
84	72.43	943.0						
85			1.27	9.90				
86	1.27	11.20						
87			36.16	272.7				
88					218.71	3,461.0		
89								
90	1.27	9.90						
91					16.72	112.60	1.27	9.90
92			148.84	4,056.5			1.50	11.70
93	2.91	23.85						
94			122.46	3,809.6				
95					1.73	24.20		
120					1.39	16.10		
121	3.00	26.60	1.27	9.90				
122			3.02	25.40	1.39	10.80		
123	1.39	10.80	3.53	36.50	34.81	300.95		
124					1.39	10.80	1.50	11.70
125	1.39	10.80	1.39	10.80				

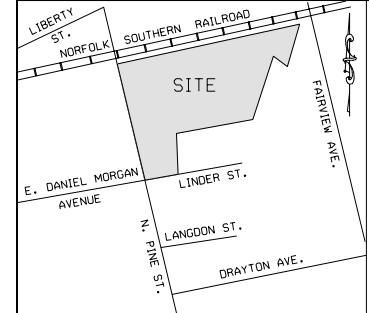
  

Exploratory Trench Samples								
Trench 10 T15					1.50	11.7		
Trench 11 T16 T17	16.5	203.2	1.39	10.8				
Trench 12 T18 T19	7.16	63.9			4.28	33.3		
Trench 13 T20 T21	30.7	1,993.0	1.90	24.5				

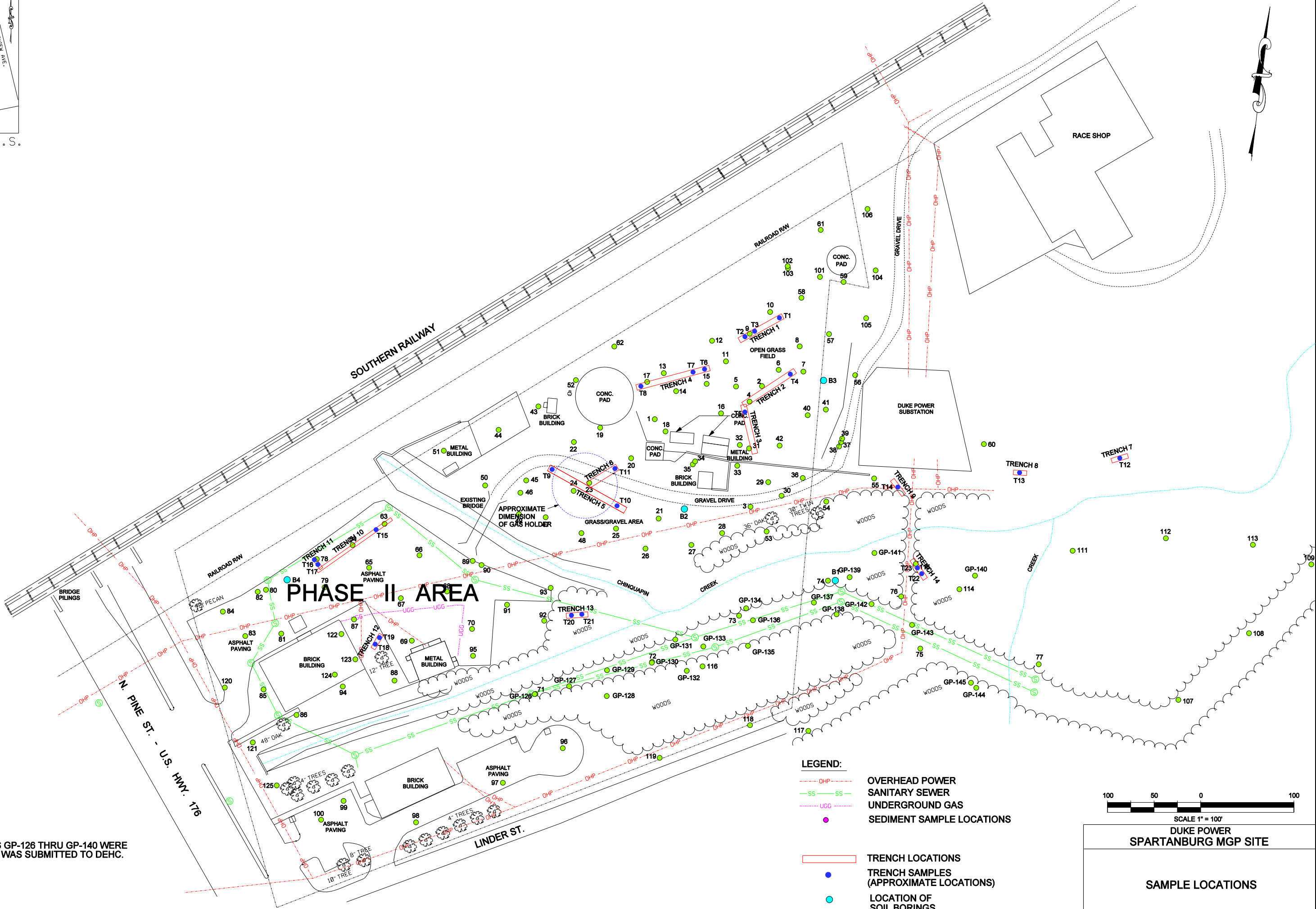
**Table 1**

## FIGURES



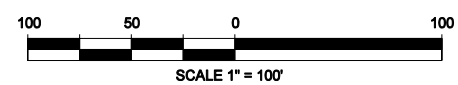


LOCATION MAP - N.T.S.



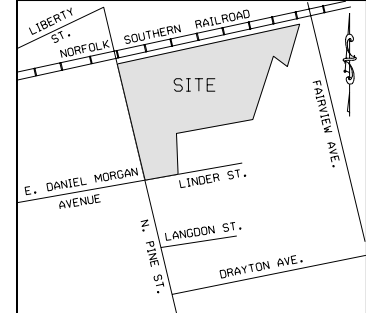
**NOTE:**  
GEOPROBE LOCATIONS GP-126 THRU GP-140 WERE  
ADDED AFTER REPORT WAS SUBMITTED TO DEHC.

- LEGEND:**
- DHP --- OVERHEAD POWER
  - SS --- SANITARY SEWER
  - UGG --- UNDERGROUND GAS
  - SEDIMENT SAMPLE LOCATIONS
  - TRENCH LOCATIONS
  - TRENCH SAMPLES (APPROXIMATE LOCATIONS)
  - LOCATION OF SOIL BORINGS

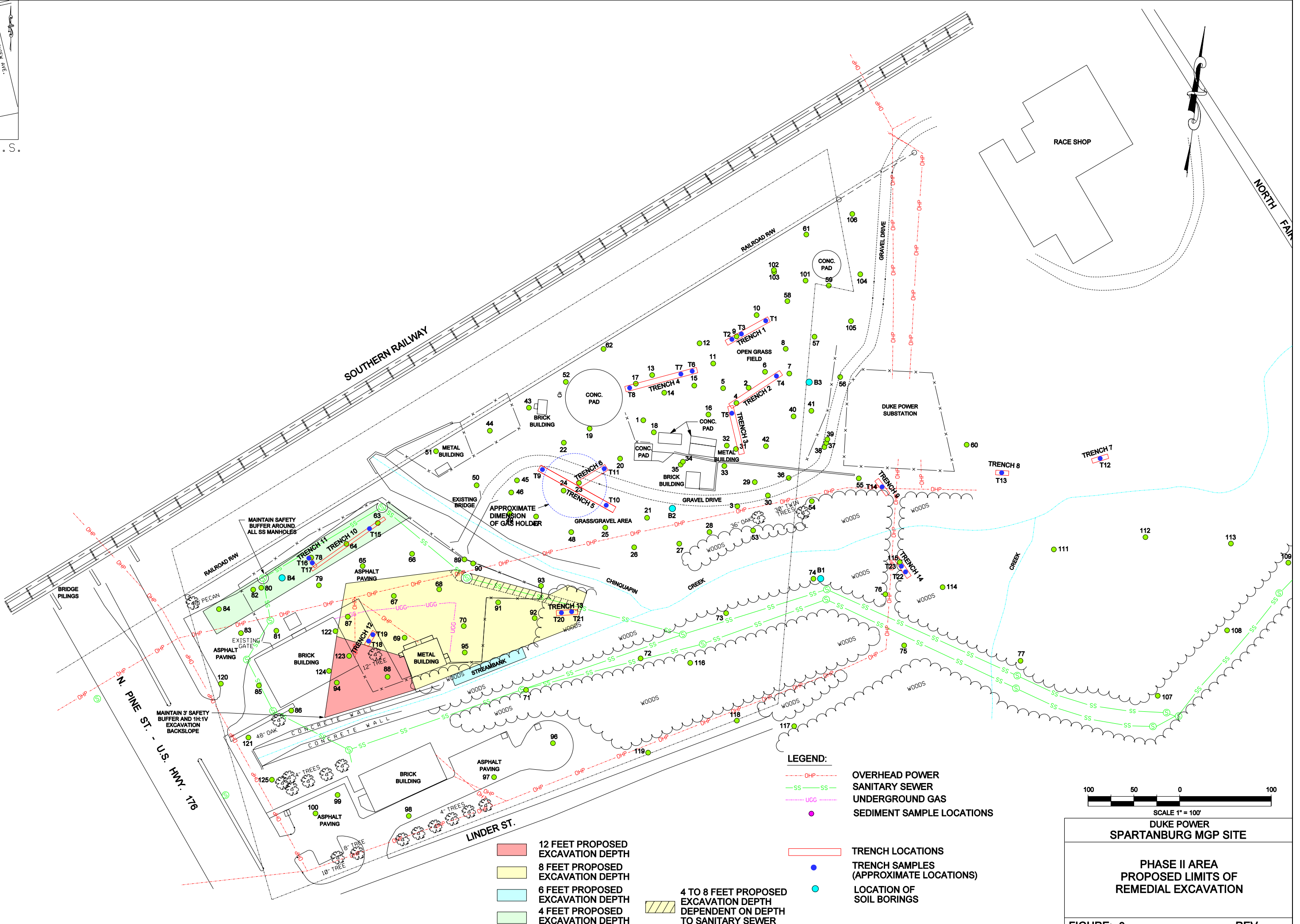


DUKE POWER SPARTANBURG MGP SITE	
SAMPLE LOCATIONS	
FIGURE: 2	REV.





LOCATION MAP - N.T.S.



## **Appendix A**

**Natural Gas Office and Warehouse Building  
And  
Metal Garage**

**Asbestos and Lead Inspection and Sampling Results  
And  
Asbestos Abatement Permitting Documentation**



Mr. Mark E. McGary, P.E.  
Duke Energy  
6615 Craig Street, Building 5643  
Mail Code TV02B  
Charlotte, North Carolina 28214-1706

Subject: **Letter of Asbestos Property Survey**  
*Duke Energy-Former Piedmont Natural Gas*  
Spartanburg, South Carolina  
Titan Project No. 95-20596

Dear Mr. McGary:

On September 31, 2002, Titan Atlantic Group, Inc. (Titan) representative Mr. Jonathan Ervin (SC Inspector License No. BI-00047) visited the Former Piedmont Natural Gas in Spartanburg, South Carolina. The purpose of our visit was to collect samples of suspect asbestos-containing materials. This work was authorized by your PO# FS43590 dated January 1, 2002.

The collected samples of suspect materials were forwarded to Scientific Laboratories, Inc. of Midlothian, Virginia for analysis by Polarized Light Microscopy (PLM) coupled with dispersion staining techniques. ~~Laboratory analysis revealed no asbestos detected.~~ The results of laboratory analysis are attached.

Titan is pleased to have the opportunity to provide asbestos services to you on this project. Should you have any questions or concerns regarding the content of this letter, please do not hesitate to call us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

*James E. Harbison*  
James E. Harbison  
Manager, EH&S

Attachments: Lab Analysis

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206Date Received 10/03/2002 SciLab Job No. 102101067  
Date Examined 10/03/2002 P.O. # 95-20596  
Page 1 of 5  
RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
01	102101067-01T1 Location: 9 X 9 Light Green FT; Office By Dock  Description: Green, Homogeneous, Cementitious, Floor Tile Asbestos Types: Chrysotile 10. % Other Material: Non-fibrous 90. %	Yes	10 %
01	102101067-01M1 Location: 9 X 9 Light Green FT; Office By Dock  Description: Black, Homogeneous, Mastic Asbestos Types: Chrysotile 15. % Other Material: Non-fibrous 85. %	Yes	15 %
02	102101067-02T1 Location: 9 X 9 Light Green FT; Office Corridor  Description: Green, Homogeneous, Cementitious, Floor Tile Asbestos Types: Chrysotile 10. % Other Material: Non-fibrous 90. %	Yes	10 %
02	102101067-02M1 Location: 9 X 9 Light Green FT; Office Corridor  Description: Black, Homogeneous, Mastic Asbestos Types: Chrysotile 15. % Other Material: Non-fibrous 85. %	Yes	15 %
03	102101067-03 Location: 2 X 4 Ceiling Tile; Paneled Office  Description: White, Heterogeneous, Bulk Material Asbestos Types: Other Material: Cellulose 45. %, Fibrous glass 45. %, Non-fibrous 10. %	No	NAD

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206Date Received 10/03/2002 SciLab Job No. 102101067  
Date Examined 10/03/2002 P.O. # 95-20596  
Page 2 of 5  
RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
04	102101067-04	No	NAD
Location: 2 X 4 Ceiling Tile; Paneled Office			
Description: White, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45. %, Fibrous glass 45. %, Non-fibrous 10. %			
05	102101067-05	No	NAD
Location: White Duct Mastic; Work Shop			
Description: White, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 60. %, Non-fibrous 40. %			
06	102101067-06	No	NAD
Location: White Duct Mastic; Work Shop			
Description: White, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 60. %, Non-fibrous 40. %			
07	102101067-07	Yes	12 %
Location: Ceiling Texture; Office 1			
Description: Off-White/Brown, Heterogeneous, Bulk Material			
Asbestos Types: Chrysotile 12. %			
Other Material: Non-fibrous 88. %			
08	102101067-08	Yes	12 %
Location: Ceiling Texture; Waiting Area			
Description: Off-White/Brown, Homogeneous, Bulk Material			
Asbestos Types: Chrysotile 12. %			
Other Material: Non-fibrous 88. %			

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206Date Received 10/03/2002 SciLab Job No. 102101067  
Date Examined 10/03/2002 P.O. # 95-20596  
Page 3 of 5  
RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
09	102101067-09	Yes	12 %
Location: Ceiling Texture; Conference Room			
Description: Off-White/Brown, Homogeneous, Bulk Material			
Asbestos Types: Chrysotile 12. %			
Other Material: Non-fibrous 88. %			
10	102101067-10.1	No	NAD
Location: Plaster & Brown Coat; Office Corridor (Ceiling)			
Description: White, Homogeneous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
10	102101067-10.2	No	NAD
Location: Plaster & Brown Coat; Office Corridor (Ceiling)			
Description: Grey, Homogeneous, Cementitious, Brown Coat			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
11	102101067-11.1	No	NAD
Location: Plaster & Brown Coat; Office Z (Ceiling)			
Description: White, Homogeneous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
11	102101067-11.2	No	NAD
Location: Plaster & Brown Coat; Office Z (Ceiling)			
Description: Grey, Homogeneous, Cementitious, Brown Coat			
Asbestos Types:			
Other Material: Non-fibrous 100. %			

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206Date Received 10/03/2002 SciLab Job No. 102101067  
Date Examined 10/03/2002 P.O. # 95-20596  
Page 4 of 5  
RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
12	102101067-12.1	No	NAD
Location: Plaster & Brown Coat; Ceiling Mens Rest Room #2			
Description: White, Homogeneous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
12	102101067-12.2	No	NAD
Location: Plaster & Brown Coat; Ceiling Mens Rest Room #2			
Description: Grey, Homogeneous, Cementitious, Brown Coat			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
13	102101067-13	No	NAD
Location: Dark Brown Baseboard / Mastic; Waiting Area			
Description: Brown, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
14	102101067-14	No	NAD
Location: Dark Brown Baseboard / Mastic; Conference Room			
Description: Brown, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 5. %, Non-fibrous 95. %			
15	102101067-15	No	NAD
Location: Roof Flashing; North Side Of Roof			
Description: Silver/Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10. %, Wollastonite 5. %, Non-fibrous 85. %			

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206Date Received 10/03/2002 SciLab Job No. 102101067  
Date Examined 10/03/2002 P.O. # 95-20596  
Page 5 of 5  
RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
16	102101067-16	No	NAD

Location: Roof Flashing; East Side Of Roof

Description: Silver/Black, Heterogeneous, Bulk Material

**Asbestos Types:**

Other Material: Fibrous glass 10. %, Wollastonite 5. %, Non-fibrous 85. %

17	102101067-17	No	NAD <sup>1</sup>
----	--------------	----	------------------

Location: Roofing Material; NW Side Of Roof

Description: Black, Heterogeneous, Bulk Material

**Asbestos Types:**

Other Material: Fibrous glass 10. %, Non-fibrous 7.3 %

18	102101067-18	No	NAD <sup>1</sup>
----	--------------	----	------------------

Location: Roofing Material; SE Side Of Roof

Description: Black, Heterogeneous, Bulk Material

**Asbestos Types:**

Other Material: Fibrous glass 29. %, Non-fibrous 50. %

**Reporting Notes:**

(1) Heat sensitive material removed by ashing at 480°C prior to PLM analysis per EPA/600/R-93/116.

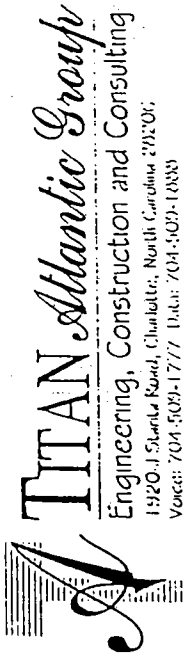
Analyzed by: Tarek S. Badawy

Date 10/4/2002

\*NAD/NSD = no asbestos detected; Detection Limit <1%; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #101904-0) and ELAP PLM Analysis Protocol 198.1 for New York samples (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. Reviewed By: *[Signature]*



# ASBESTOS SURVEY FORM



Project No. 95-20596  
 Project Name Old Belmont National Gas  
 Date of Inspection 9/31/02  
 Inspector Sebastian Ervin

sample no.	homogeneous Material description	location	condition	approximate quantity	friable/ non-friable
01	9x9 light green tile	office by dock	good	1700 sf	NF
02	"	office corridor	good	1700 sf	NF
03	2x4 ceiling tile	panel office	good	100 sf	NF
04	"	panel office	good	100 sf	NF
05	white duct mastic	work shop	good	50 sf	NF
06	"	work shop	good	50 sf	NF
07	ceiling texture	office 1	fair	1700 sf	fractable
08	↓	waiting area	fair	1200 sf	fractable
09	↓	conference room	fair	1200 sf	fractable
10	Plaster + Brown Grit	office corridor (ceiling)		1900 sf	fractable
11	↓	office 2 (ceiling)		1400 sf	fractable
12	↓	Ceiling Mens Rest Room #2		1900 sf	fractable
13	Dark Brown Basalt/Asbestos	Waiting Area	good	400 sf	NF
14	Dark Brown Basalt/Asbestos	Antenna Room	good	400 sf	NF
15	Red Chalk	North side of Roof	good		NF
16	Red Chalk	East side of Roof	good		NF
17	Red Chalk	SW side of Roof	good	4000 sf	NF
18	Red Chalk	SE side of Roof	good	4000 sf	NF
19					
20					

PROJECT NAME \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

SCALE \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_

COMPUTED \_\_\_\_\_ DATE \_\_\_\_\_

CHECKED \_\_\_\_\_ DATE \_\_\_\_\_



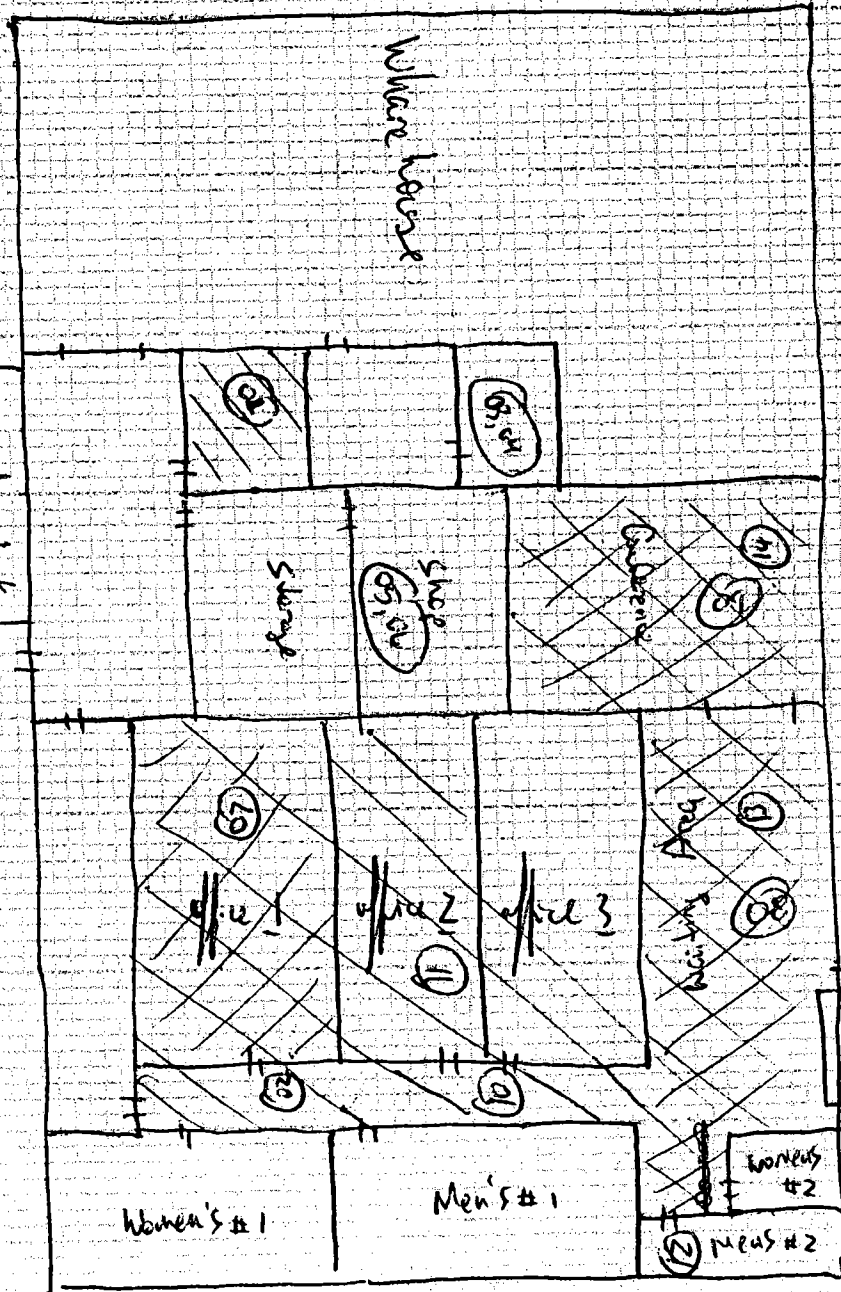
textured ceiling



CT (9x9 light green)

some ceiling texture on loading dock

loading dock





October 15, 2002

Mr. Mark E. McGary, P.E.  
Duke Energy  
6615 Craig Street, Building 5643  
Mail Code TV02B  
Charlotte, North Carolina 28214-1706

Subject: **Report of Survey to Identify Lead Based Paint**  
*Duke Energy - Former Piedmont Natural Gas*  
Spartanburg, South Carolina  
Titan Project No. 95-20596

Dear Mr. McGary:

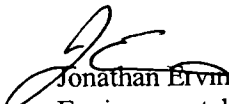
On September 31, 2002, Titan Atlantic Group, Inc. (Titan) representative, Mr. Jonathan Ervin visited the Former Piedmont Natural Gas in Spartanburg, South Carolina. The purpose of our visit was to collect and submit for analysis samples of suspect lead-containing paint. The work was authorized by PO# FS43590 dated January 1, 2002.

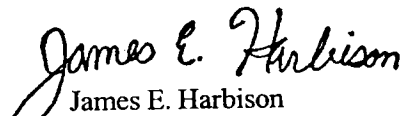
The samples were forwarded to Scientific Laboratories, Inc. of Midlothian, Virginia for analysis. Sample analysis revealed that **none** of the samples taken contained detectable amounts of lead greater than .5 % lead concentration by weight. The results of laboratory analysis are attached.

Titan is pleased to have the opportunity to provide asbestos services to you on this project. Should you have any questions or concerns regarding the content of this letter, please do not hesitate to call us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

  
Jonathan Ervin  
Environmental Specialist

  
James E. Harbison  
Manager, EH&S

Attachment: Lab Analysis

# SCHNEIDER LABORATORIES

INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117  
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

*Excellence in Service and Technology*

AIHA/ELLAP 100527, NVLAP 10150-0, NYELAP/NELAC 11413, CAELAP 2078, NC 593, SC 93003

## LABORATORY ANALYSIS REPORT

Lead Analysis by EPA 3050B/7420 Method

ACCOUNT #: 153-02-4801  
CLIENT: S.C.I. LAB  
ADDRESS: 13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

PO NO.: 102.10.1061

PROJECT NAME:

PROJECT NO.:

JOB LOCATION:

DATE COLLECTED:

DATE RECEIVED: 10/ 3/2002

DATE ANALYZED: 10/ 3/2002

DATE REPORTED: 10/ 3/2002

SAMPLE TYPE: PAINT

SLI Sample No.	Client Sample No.	Sample Description	Sample Wt (mg)	Dilution Factor	Total Lead (µg)*	Lead Conc (% by wt)
2429499	1002-1		497	2	1,844.4	0.371
2429500	1002-2		505	1	48.6	0.010
2429501	1002-3		480	1	< 20.0	< 0.004
	QC - 23772	10.0 ppm Calibration Std			997.5	99.7%
	QC - 23772	200 µg spike			211.6	105.8%
	QC - 23772	5.0 ppm Calibration Std			508.4	101.7%
	QC - 23772	Blank			< 20.0	
	QC - 23772	NIST 2710 Standard			554.4	100.2%

ANALYST: JAMES M. VESCIO  
Total no. of pages in report = 3

REVIEWED BY  Matthew D. Asbury, Dept. Head

Minimum Reporting Limit: 20 µg Total Lead. For work involving HUD, child-occupied building and other residential units, the Federal Lead Standard is 0.5% lead by weight [5000 ppm]. The requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, are invoked if any lead is present in the sample; there is no minimum concentration. Lead-free paint is defined as <0.06% by weight (CPSC). \*For true values, assume two (2) significant figures. All testing is performed in strict accordance with Schneider Laboratories, Inc. protocol.



October 15, 2002

Mr. Mark E. McGary, P.E.  
Duke Energy  
6615 Craig Street, Building 5643  
Mail Code TV02B  
Charlotte, North Carolina 28214-1706

Subject: **Report of Survey to Identify Lead Based Paint**  
*Duke Energy - Former Piedmont Natural Gas*  
Spartanburg, South Carolina  
Titan Project No. 95-20596

Dear Mr. McGary:


On September 31, 2002, Titan Atlantic Group, Inc. (Titan) representative, Mr. Jonathan Ervin visited the Former Piedmont Natural Gas in Spartanburg, South Carolina. The purpose of our visit was to collect and submit for analysis samples of suspect lead-containing paint. The work was authorized by PO# FS43590 dated January 1, 2002.

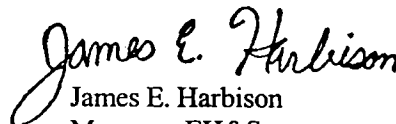
The samples were forwarded to Scientific Laboratories, Inc. of Midlothian, Virginia for analysis. Sample analysis revealed that **none** of the samples taken contained detectable amounts of lead greater than .5 % lead concentration by weight. The results of laboratory analysis are attached.

Titan is pleased to have the opportunity to provide asbestos services to you on this project. Should you have any questions or concerns regarding the content of this letter, please do not hesitate to call us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

  
Jonathan Ervin  
Environmental Specialist

  
James E. Harbison  
Manager, EH&S

Attachment: Lab Analysis

# SCHNEIDER LABORATORIES

## INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117  
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928

*Excellence in Service and Technology*

AIHA/ELLAP 100527, NVLAP 10150-0, NYELAP/NELAC 11413, CAELAP 2078, NC 593, SC 93003

## LABORATORY ANALYSIS REPORT

Lead Analysis by EPA 3050B/7420 Method

ACCOUNT #: 153-02-4801  
CLIENT: S.C.I. LAB  
ADDRESS: 13635 GENITO ROAD  
MIDLOTHIAN, VA 23112  
PO NO.: 102.10.1061  
PROJECT NAME:  
PROJECT NO.:  
JOB LOCATION:

DATE COLLECTED:  
DATE RECEIVED: 10/ 3/2002  
DATE ANALYZED: 10/ 3/2002  
DATE REPORTED: 10/ 3/2002

SAMPLE TYPE: PAINT

SLI Sample No.	Client Sample No.	Sample Description	Sample Wt (mg)	Dilution Factor	Total Lead (µg)*	Lead Conc (% by wt)
2429499	1002-1		497	2	1,844.4	0.371
2429500	1002-2		505	1	48.6	0.010
2429501	1002-3		480	1	< 20.0	< 0.004
	QC - 23772	10.0 ppm Calibration Std			997.5	99.7%
	QC - 23772	200 µg spike			211.6	105.8%
	QC - 23772	5.0 ppm Calibration Std			508.4	101.7%
	QC - 23772	Blank			< 20.0	
	QC - 23772	NIST 2710 Standard			554.4	100.2%

ANALYST: JAMES M. VESCIO  
Total no. of pages in report =

  
REVIEWED BY Matthew D. Asbury, Dept. Head

Minimum Reporting Limit: 20 µg Total Lead. For work involving HUD, child-occupied building and other residential units, the Federal Lead Standard is 0.5% lead by weight [5000 ppm]. The requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, are invoked if any lead is present in the sample; there is no minimum concentration. Lead-free paint is defined as <0.06% by weight (CPSC). \*For true values, assume two (2) significant figures. All testing is performed in strict accordance with Schneider Laboratories, Inc. protocol.



October 15, 2002

Mr. Mark E. McGary, P.E.  
Duke Energy  
6615 Craig Street, Building 5643  
Mail Code TV02B  
Charlotte, North Carolina 28214-1706

Subject: **Letter of Asbestos Property Survey**  
*Duke Energy-Former Piedmont Natural Gas*  
Spartanburg, South Carolina  
Titan Project No. 95-20596

Dear Mr. McGary:

On September 31, 2002, Titan Atlantic Group, Inc. (Titan) representative Mr. Jonathan Ervin (SC Inspector License No. BI-00047) visited the Former Piedmont Natural Gas in Spartanburg, South Carolina. The purpose of our visit was to collect samples of suspect asbestos-containing materials. This work was authorized by your PO# FS43590 dated January 1, 2002.

The collected samples of suspect materials were forwarded to Scientific Laboratories, Inc. of Midlothian, Virginia for analysis by Polarized Light Microscopy (PLM) coupled with dispersion staining techniques. ~~Laboratory analysis revealed no asbestos detected.~~ The results of laboratory analysis are attached.

Titan is pleased to have the opportunity to provide asbestos services to you on this project. Should you have any questions or concerns regarding the content of this letter, please do not hesitate to call us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

*James E. Harbison*  
James E. Harbison  
Manager, EH&S

Attachments: Lab Analysis

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206**Date Received** 10/03/2002 **SciLab Job No.** 102101067**Date Examined** 10/03/2002 **P.O. #** 95-20596**Page** 1 of 5**RE:** 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
01	102101067-01T1	Yes	10 %
Location: 9 X 9 Light Green FT; Office By Dock			
Description: Green, Homogeneous, Cementitious, Floor Tile			
Asbestos Types: Chrysotile 10. %			
Other Material: Non-fibrous 90. %			
01	102101067-01M1	Yes	15 %
Location: 9 X 9 Light Green FT; Office By Dock			
Description: Black, Homogeneous, Mastic			
Asbestos Types: Chrysotile 15. %			
Other Material: Non-fibrous 85. %			
02	102101067-02T1	Yes	10 %
Location: 9 X 9 Light Green FT; Office Corridor			
Description: Green, Homogeneous, Cementitious, Floor Tile			
Asbestos Types: Chrysotile 10. %			
Other Material: Non-fibrous 90. %			
02	102101067-02M1	Yes	15 %
Location: 9 X 9 Light Green FT; Office Corridor			
Description: Black, Homogeneous, Mastic			
Asbestos Types: Chrysotile 15. %			
Other Material: Non-fibrous 85. %			
03	102101067-03	No	NAD
Location: 2 X 4 Ceiling Tile; Paneled Office			
Description: White, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45. %, Fibrous glass 45. %, Non-fibrous 10. %			



**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206

Date Received 10/03/2002 SciLab Job No. 102101067

Date Examined 10/03/2002 P.O. # 95-20596

Page 2 of 5

RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
04	102101067-04	No	NAD
Location: 2 X 4 Ceiling Tile; Paneled Office			
Description: White, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Cellulose 45. %, Fibrous glass 45. %, Non-fibrous 10. %			
05	102101067-05	No	NAD
Location: White Duct Mastic; Work Shop			
Description: White, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 60. %, Non-fibrous 40. %			
06	102101067-06	No	NAD
Location: White Duct Mastic; Work Shop			
Description: White, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 60. %, Non-fibrous 40. %			
07	102101067-07	Yes	12 %
Location: Ceiling Texture; Office 1			
Description: Off-White/Brown, Heterogeneous, Bulk Material			
Asbestos Types: Chrysotile 12. %			
Other Material: Non-fibrous 88. %			
08	102101067-08	Yes	12 %
Location: Ceiling Texture; Waiting Area			
Description: Off-White/Brown, Homogeneous, Bulk Material			
Asbestos Types: Chrysotile 12. %			
Other Material: Non-fibrous 88. %			

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD -  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206**Date Received** 10/03/2002 **SciLab Job No.** 102101067  
**Date Examined** 10/03/2002 **P.O. #** 95-20596  
**Page** 3 **of** 5  
**RE:** 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
09	102101067-09 Location: Ceiling Texture; Conference Room	Yes	12 %
Description: Off-White/Brown, Homogeneous, Bulk Material Asbestos Types: Chrysotile 12. % Other Material: Non-fibrous 88. %			
10	102101067-10.1 Location: Plaster & Brown Coat; Office Corridor (Ceiling)	No	NAD
Description: White, Homogeneous, Cementitious, Plaster Asbestos Types: Other Material: Non-fibrous 100. %			
10	102101067-10.2 Location: Plaster & Brown Coat; Office Corridor (Ceiling)	No	NAD
Description: Grey, Homogeneous, Cementitious, Brown Coat Asbestos Types: Other Material: Non-fibrous 100. %			
11	102101067-11.1 Location: Plaster & Brown Coat; Office Z (Ceiling)	No	NAD
Description: White, Homogeneous, Cementitious, Plaster Asbestos Types: Other Material: Non-fibrous 100. %			
11	102101067-11.2 Location: Plaster & Brown Coat; Office Z (Ceiling)	No	NAD
Description: Grey, Homogeneous, Cementitious, Brown Coat Asbestos Types: Other Material: Non-fibrous 100. %			

**SCIENTIFIC LABORATORIES, INC.**

13635 GENITO ROAD

MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**

Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206

Date Received 10/03/2002 SciLab Job No. 102101067

Date Examined 10/03/2002 P.O. # 95-20596

Page 4 of 5

RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
12	102101067-12.1	No	NAD
Location: Plaster & Brown Coat; Ceiling Mens Rest Room #2			
Description: White, Homogeneous, Cementitious, Plaster			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
12	102101067-12.2	No	NAD
Location: Plaster & Brown Coat; Ceiling Mens Rest Room #2			
Description: Grey, Homogeneous, Cementitious, Brown Coat			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
13	102101067-13	No	NAD
Location: Dark Brown Baseboard / Mastic; Waiting Area			
Description: Brown, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Non-fibrous 100. %			
14	102101067-14	No	NAD
Location: Dark Brown Baseboard / Mastic; Conference Room			
Description: Brown, Homogeneous, Bulk Material			
Asbestos Types:			
Other Material: Synthetic fibers 5. %, Non-fibrous 95. %			
15	102101067-15	No	NAD
Location: Roof Flashing; North Side Of Roof			
Description: Silver/Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10. %, Wollastonite 5. %, Non-fibrous 85. %			

**SCIENTIFIC LABORATORIES, INC.**13635 GENITO ROAD  
MIDLOTHIAN, VA 23112

TEL: (804) 763-1200 • FAX: (804) 763-1800

**PLM Bulk Asbestos Report**Titan Atlantic Group  
Attn: James Harbison  
1920 Starita Road, Suite J  
Charlotte, NC 28206

Date Received 10/03/2002 SciLab Job No. 102101067

Date Examined 10/03/2002 P.O. # 95-20596

Page 5 of 5

RE: 95-20596; Duke Power Old Piedmont Natural Gas;  
Spartanburg, SC

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
16	102101067-16	No	NAD
Location: Roof Flashing; East Side Of Roof			
Description: Silver/Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10. %, Wollastonite 5. %, Non-fibrous 85. %			
17	102101067-17	No	NAD <sup>1</sup>
Location: Roofing Material; NW Side Of Roof			
Description: Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 10. %, Non-fibrous 7.3 %			
18	102101067-18	No	NAD <sup>1</sup>
Location: Roofing Material; SE Side Of Roof			
Description: Black, Heterogeneous, Bulk Material			
Asbestos Types:			
Other Material: Fibrous glass 29. %, Non-fibrous 50. %			

**Reporting Notes:**

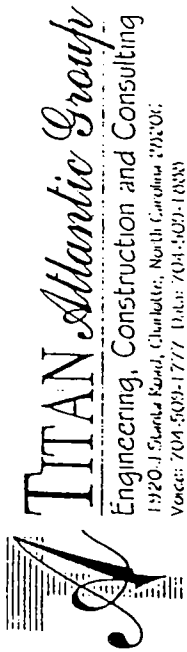
(1) Heat sensitive material removed by ashing at 480°C prior to PLM analysis per EPA/600/R-93/116.

Analyzed by: Tarek S. Badawy

Date 10/4/2002

\*NAD/NSD = no asbestos detected; Detection Limit <1%; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #101904-0) and ELAP PLM Analysis Protocol 198.1 for New York samples (NYSDOH ELAP Lab # 10984); CA ELAP Lab # 2508; Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. Reviewed By: [Signature]

# ASBESTOS SURVEY FORM



Project No. Old Redmont Wetland Cms  
 Project Name 95-20596  
 Date of Inspection 9/3/02  
 Inspector Swanathan Ervin

sample no.	homogeneous material description	location	condition	approximate quantity	friable / non-friable
01	9x9 light green FT	office by clock	good	1700 sf	NF
02	2x4 ceiling tile	office corridor	good	1700 sf	NF
03	"	paneled office	good	140 sf	NF
04	"	paneled office	good	100 sf	NF
05	white duct mesh	work shop	good	50 sf	NF
06	"	work shop	good	50 sf	NF
07	ceiling texture	office 1	fair	1700 sf	friable
08	↓	waiting area	fair	1200 sf	friable
09	↓	conference room	fair	1200 sf	friable
10	Plaster & Brown Gist	office corridor (ceiling)		1900 sf	friable
11	↓	office 2 (ceiling)		1400 sf	friable
12	↓	Ceiling Mens Rest Room #2		1900 sf	friable
13	Dark Brown Beadboard/Mastic	Waiting Area	good	500 sf	NF
14	Dark Brown Beadboard/Mastic	Antearea Room	good	400 sf	NF
15	Roof Sheeting	North side of Roof	good		NF
16	Roof Flashing	East side of Roof	good		NF
17	Roofing Material	NW side of Roof	good	4000 sf	NF
18	Roofing Material	SE side of Roof	good	6000 sf	NF
19					
20					



# TITAN Atlantic Group

Engineering, Surveying, Construction and Consulting

5240 GREEN'S DAIRY ROAD • RALEIGH, NC 27616 • (919) 873-2211 • FAX (919) 873-8555  
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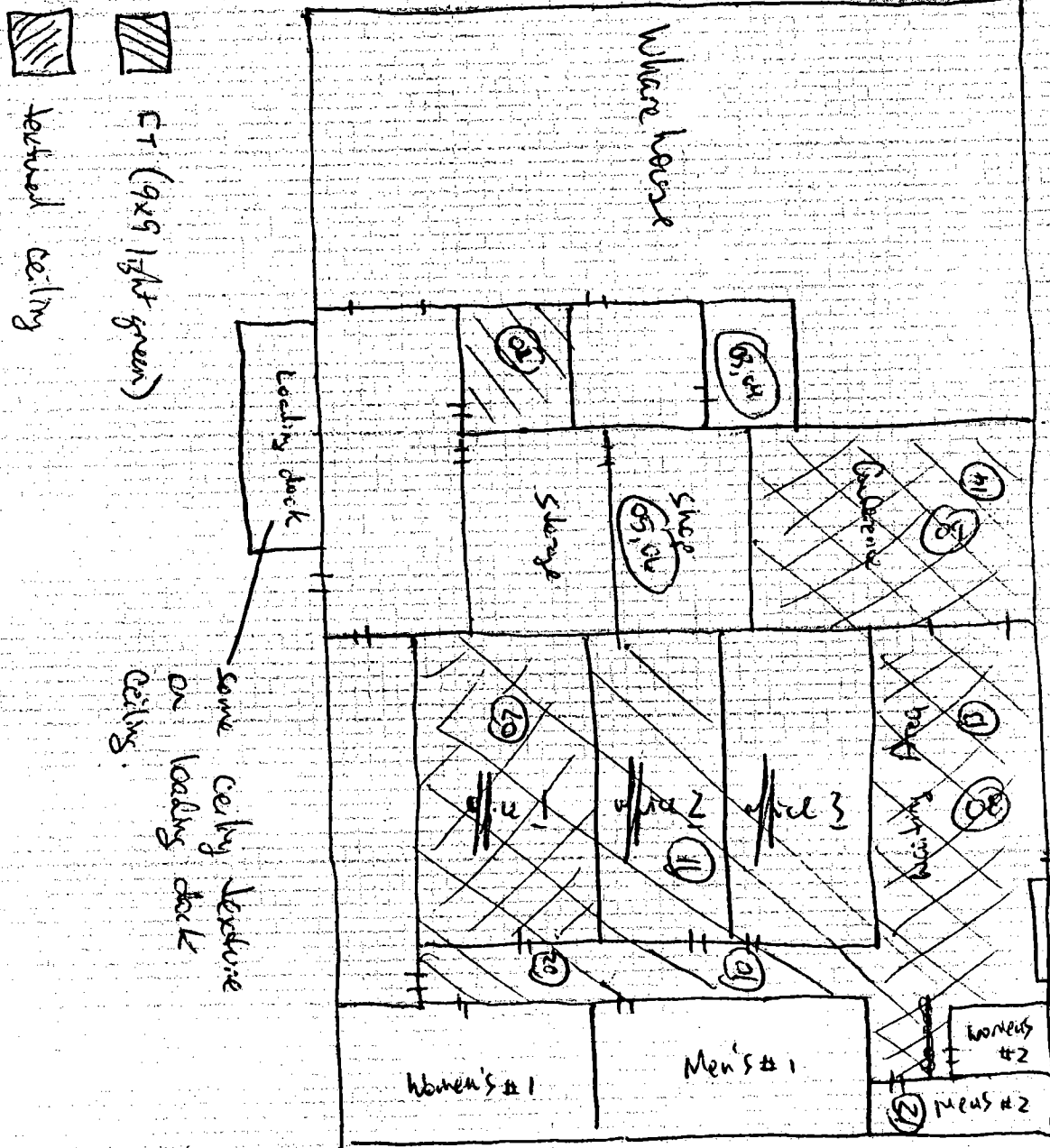
PROJECT NAME \_\_\_\_\_

PROJECT NO. \_\_\_\_\_

SCALE \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_

COMPUTED \_\_\_\_\_ DATE \_\_\_\_\_

CHECKED \_\_\_\_\_ DATE \_\_\_\_\_



**TITAN *Atlantic Group***

**A Terracon Company**

2020-E Starita Road  
Charlotte, North Carolina 28206  
(704) 509-1777 Fax: (704) 509-1888

February 25, 2003

Mr. Mark E. McGary, P.E.  
Duke Energy  
6615 Craig Street, Building 5643  
Mail Code TV02B  
Charlotte, NC 28214-1706

Subject: **Letter of Asbestos Property Survey**  
*Duke Energy-Former Piedmont Natural Gas Garage*  
Spartanburg, South Carolina  
Titan Project No. 71037071

Dear Mr. McGary:

On February 19, 2003, Titan Atlantic Group, Inc. (Titan) representative Mr. William Reid (SC Accreditation No. ASB-23363) visited the garage at the Former Piedmont Natural Gas facility in Spartanburg, South Carolina. The purpose of our visit was to collect and submit for analysis samples of suspect materials located within the structure. This work was authorized by PO# FS43590 dated January 1, 2002.

The collected samples of suspect materials were forwarded to Schneider Laboratories, Inc. of Richmond, Virginia for analysis by Polarized Light Microscopy (PLM) coupled with dispersion staining techniques. Laboratory analysis revealed that **none** of the samples collected contained asbestos. The results of laboratory analysis are attached.

Titan is pleased to have the opportunity to provide asbestos services to you on this project. Should you have any questions or concerns regarding the content of this letter, please do not hesitate to call us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

*William E. Reid*  
William E. Reid  
Project Manager

*James E. Harbison*  
James E. Harbison  
Manager, EH&S

Attachment: Lab Analysis

# SCHNEIDER LABORATORIES INCORPORATED

2512 W. Cary Street • Richmond, Virginia • 23220-5117  
804-353-6778 • 800-785-LABS (5227) • (FAX) 804-353-6928  
*Excellence In Service and Technology*

AIHA/ELLAP 100527, NVLAP 10150-0, NYELAP/NELAC 11413, CAELAP 2078, NC 593

## LABORATORY ANALYSIS REPORT

Asbestos Identification by EPA Method 600/R-93/116

**ACCOUNT:** 2027-03-61  
**CLIENT:** Titan Atlantic Group  
**ADDRESS:** 2020 Starita Road, Suite E  
Charlotte, NC 28206

**DATE COLLECTED:** 2/19/2003  
**DATE RECEIVED:** 2/20/2003  
**DATE ANALYZED:** 2/20/2003  
**DATE REPORTED:** 2/20/2003

**PO NO.:**  
**PROJECT NAME:** Duke Energy  
**PROJECT NO.:** 71037071  
**JOB LOCATION:** 688 N. Pine St.

Client Sample No.	SLI Sample/ Layer ID	Sample Identification/ Layer Name	Asbestos Detected (Yes/No)	Sample Description
1	2571248 Layer 1: 100% Non-Asbestos	Insulation Insulation	No	Yellow, Fibrous MINERAL/GLASS WOOL 85%, NON FIBROUS MATERIAL 15%
2	2571249 Layer 1: 100% Non-Asbestos	Insulation Insulation	No	Yellow, Fibrous MINERAL/GLASS WOOL 90%, NON FIBROUS MATERIAL 10%
3	2571250 Layer 1: 100% Non-Asbestos	Peg Board Peg Board	No	Brown, Fibrous CELLULOSE FIBER 65%, NON FIBROUS MATERIAL 35%
4	2571251 Layer 1: 100% Non-Asbestos	Peg Board Peg Board	No	Brown, Fibrous CELLULOSE FIBER 60%, NON FIBROUS MATERIAL 40%

**ANALYST:** HALA A. OSMAN  
Total no. of pages in report = 1

REVIEWED BY

Sami A. Hosn, Analyst

*Samples analyzed by the EPA Test Method are subject to the inherent limitations of light microscopy including interference by matrix components. Gravimetric reduction and correlative analyses are recommended for all non-friable, organically bound materials. For calibrated visual estimate, 1% is the concentration at which there is a quantitative uncertainty. This report relates only to the items tested, must not be reproduced except in full with the approval of the lab, and must not be used to claim NVLAP or other government agency endorsement.*



**TITAN Atlantic Group**

**A Terracon Company**

2020-E Starita Road  
Charlotte, North Carolina 28206  
(704) 509-1777 Fax: (704) 509-1888

February 24, 2003

Mr. Mark E. McGary, P.E.  
Duke Energy  
6615 Craig Street, Building 5643  
Mail Code TV02B  
Charlotte, North Carolina 28214-1706

**Subject: Report of Survey to Identify Lead Based Paint**  
*Duke Energy - Former Piedmont Natural Gas Garage*  
Spartanburg, South Carolina  
Titan Project No. 71037071

Dear Mr. McGary:

On February 19, 2003, Titan Atlantic Group, Inc. (Titan) representative Mr. William Reid visited the garage at the Former Piedmont Natural Gas facility in Spartanburg, South Carolina. The purpose of our visit was to collect and submit for analysis samples of suspect lead-containing paint. The work was authorized by PO# FS43590 dated January 1, 2002.

The samples were forwarded to Schneider Laboratories, Inc. of Richmond, Virginia for analysis. Sample analysis revealed that the dark brown paint (sample number L-5) contained detectable amounts of lead greater than .5 % lead concentration by weight. The results of laboratory analysis are attached.

Titan is pleased to have the opportunity to provide asbestos services to you on this project. Should you have any questions or concerns regarding the content of this letter, please do not hesitate to call us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

*William E. Reid*  
William E. Reid  
Project Manager

*James E. Harbison*

James E. Harbison  
Manager, EH&S

Attachment: Lab Analysis

# SCHNEIDER LABORATORIES INCORPORATED

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## LABORATORY ANALYSIS REPORT

Lead Analysis by EPA 3050B/7420 Method

ACCOUNT #: 2027-03-62  
CLIENT: Titan Atlantic Group  
ADDRESS: 2020 Starita Road, Suite E  
Charlotte, NC 28206

DATE COLLECTED: 2/19/2003  
DATE RECEIVED: 2/20/2003  
DATE ANALYZED: 2/20/2003  
DATE REPORTED: 2/21/2003

PO NO.:  
PROJECT NAME: Duke Energy  
PROJECT NO.: 71837071  
JOB LOCATION: 686 N. Pine St

SAMPLE TYPE: PAINT

SLI Sample No.	Client Sample No.	Sample Description	Sample Wt (mg)	Dilution Factor	Total Lead (µg)*	Lead Conc (% by wt)
2571283	L-1	Brown Paint	204	1	43.6	0.021
2571284	L-2	Grey Paint	253	1	84.9	0.034
2571285	L-3	Beige Paint	388	1	81.2	0.021
2571286	L-4	White Paint	152	1	28.5	0.019
2571287	L-5	Dark Brown Paint	137	10	2,166.2	1.581
	QC - 25252	10.0 ppm Calibration Std			995.4	99.5%
	QC - 25252	200 µg spike			205.3	102.7%
	QC - 25252	5.0 ppm Calibration Std			498.8	99.8%
	QC - 25252	Blank			< 20.0	
	QC - 25252	NIST 2581 Standard			446.1	99.4%
	QC - 25252	NIST 2710 Standard			547.7	99.0%

ANALYST: M. TODD GIBSON

Total no. of pages in report = 1

REVIEWED BY  Matthew D. Asbury, Dept. Head

Minimum Reporting Limit: 20 µg Total Lead. For work involving HUD, child-occupied building and other residential units, the Federal Lead Standard is 0.5% lead by weight [5000 ppm]. The requirements of the OSHA Lead in Construction Standard, 29 CFR 1926.62, are invoked if any lead is present in the sample; there is no minimum concentration. Lead-free paint is defined as <0.06% by weight (CPSC). \*For true values, assume two (2) significant figures. All testing is performed in strict accordance with Schneider Laboratories, Inc. protocol.

03CH-1-4720

BUREAU OF AIR QUALITY • ASBESTOS SECTION • 2600 BULL STREET • COLUMBIA • SC • 29201  
TYPE OF OPERATION: ☒ Standard Removal ☐ Emergency Removal ☐ Enclosure ☐ Encapsulation ☐ Cleanup ☒ Disposal

FOR OFFICE USE

Postmark/Received:

Original/Revised/Cancellation (circle one)

Project License I. D. (For Revisions/Cancellations):

I. FACILITY OWNER: Piedmont Natural Gas CompanyMAILING ADDRESS: Post Office Box 170189CITY: Spartanburg STATE: SC ZIP: 29301CONTACT PERSON: Mike Forrester PHONE: (864) 576-8333II. REMOVAL CONTRACTOR: CONTAMINANT CONTROL, INC.MAILING ADDRESS: POST OFFICE BOX 3409CITY: MATTHEWS STATE: NORTH CAROLINA ZIP: 28106CONTACT PERSON: CINDY STAFFORD PHONE: (704) 814-9222DHEC CONTRACTOR LICENSE NO. (if applicable): 347 EXPIRATION DATE: JANUARY 24, 2004OTHER OPERATOR: Duke Energy - Energy Delivery ServicesMAILING ADDRESS: 8615 Craig Street Building #5843, Mail Code TV02BCITY: Charlotte STATE: NC ZIP: 28215-1706CONTACT PERSON: Kenny Ramsey PHONE: (704) 634-7093III. FACILITY NAME: Piedmont Natural GasSTREET ADDRESS: 686 North Pine StreetCITY: Spartanburg STATE: SC COUNTY: SpartanburgSITE (ROOM, FLOOR, WING, UNIT, MACHINE, ETC.): OfficesBUILDING SIZE: 1,500 +/- NO. OF FLOORS: 1 AGE IN YEARS: 25 +PRESENT USE: Vacant PRIOR USE: Warehouse/Office Space FUTURE USE: To be demolished

IV. PROCEDURES, INCLUDING ANALYTICAL METHOD IF APPROPRIATE, USED TO DETECT THE PRESENCE OF ASBESTOS MATERIAL: \_\_\_\_\_

FACILITY OR FACILITY COMPONENT SURVEYED BY (INSPECTOR NAME): \_\_\_\_\_

COMPANY: \_\_\_\_\_ PHONE: ( ) \_\_\_\_\_

DHEC LICENSE NUMBER: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

V. PROJECT DESIGN PERFORMED BY (IF APPLICABLE): \_\_\_\_\_

COMPANY: \_\_\_\_\_ PHONE: ( ) \_\_\_\_\_

DHEC LICENSE NUMBER: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

VI. ASBESTOS-CONTAINING MATERIALS (ACM) TO BE REMOVED ONLY:

TYPE (TSI, SURFACING, FLOORING, ROOFING, ETC.)	AMOUNT (SQUARE FEET, LINEAR FEET, CUBIC FEET)	CONDITION (CHECK ONE)
Floor Tile	1,269SF	<input checked="" type="checkbox"/> FRIABLE/NON-FRIABLE <input type="checkbox"/>
Textured Ceiling	814SF	<input checked="" type="checkbox"/> FRIABLE/NON-FRIABLE <input type="checkbox"/>
		<input type="checkbox"/> FRIABLE/NON-FRIABLE <input type="checkbox"/>
		<input type="checkbox"/> FRIABLE/NON-FRIABLE <input type="checkbox"/>

VII. SCHEDULED DATES OF REMOVAL: START DATE: March 17, 2003 COMPLETION DATE: March 21, 2003WORK DAYS: Monday, Tuesday, Wednesday, Thursday & Friday WORK HOURS: 7:30 am - 5:30 pm

DHEC 3430 (08/1996)

## Notification of Asbestos Renovation Project (continued)

## VIII. DESCRIPTION OF PLANNED ABATEMENT WORK &amp; METHOD(S) TO BE USED:

Remove, package and dispose of 1,269SF of floor tile and 814SF of ceiling tile, using full negative pressure enclosure and wet removal practices.

## IX. DESCRIPTION OF WORK PRACTICES &amp; ENGINEERING CONTROLS TO BE USED TO PREVENT EMISSIONS OF ASBESTOS AT THE RENOVATION SITE:

Follow all Federal, State and Local requirements.

X. WASTE TRANSPORTER #1: Ray Walker Trucking

MAILING ADDRESS: Post Office Box 469

CITY: Piedmont STATE: SC ZIP: 29673

CONTACT PERSON: Mike Walker PHONE: (864) 277-5234

WASTE TRANSPORTER #2:

MAILING ADDRESS:

CITY: STATE: ZIP:

CONTACT PERSON: PHONE: ( )

XI. WASTE DISPOSAL SITE: Waste management - Palmetto

ADDRESS: 251 New Hope Road

CITY: Wellford STATE: SC ZIP: 29385

CONTACT PERSON: Helen Rigg PHONE: (864) 439-9184

TEMPORARY ASBESTOS STORAGE CONTAINMENT AREA LICENSE NUMBER (IF APPLICABLE):

## XII. DESCRIPTION OF EMERGENCY REMOVAL (PLEASE ATTACH A LETTER FROM THE FACILITY OWNER EXPLAINING THE NATURE OF THE EMERGENCY)

DATE & HOUR OF EMERGENCY (MM/DD/YY):

DESCRIPTION OF SUDDEN, UNEXPECTED EVENT:

EXPLANATION OF HOW THE EVENT CAUSED UNSAFE CONDITIONS AND/OR WOULD CAUSE EQUIPMENT DAMAGE AND/OR UNREASONABLE FINANCIAL BURDEN:

## XIII. DESCRIPTION OF PROCEDURES TO BE FOLLOWED IN THE EVENT THAT UNEXPECTED ASBESTOS IS FOUND OR PREVIOUSLY NONFRIABLE ASBESTOS MATERIAL BECOMES CRUMBLED, PULVERIZED, OR REDUCED TO POWDER:

Stop work, wet methods, follow all Federal, State and Local requirements.

## XIV. I CERTIFY THAT AN INDIVIDUAL TRAINED IN THE PROVISIONS OF REGULATION (40 CFR PART 61, SUBPART M) WILL BE ON-SITE DURING THE RENOVATION AND EVIDENCE THAT THE REQUIRED TRAINING HAS BEEN ACCOMPLISHED BY THIS PERSON WILL BE AVAILABLE FOR INSPECTION DURING NORMAL BUSINESS HOURS:

Cindy Stafford  
(SIGNATURE OF OWNER/OPERATOR) Cindy Stafford, Director of Operations

3-4-03  
(DATE)

## XV. I CERTIFY THAT THE ABOVE INFORMATION IS CORRECT:

Cindy Stafford  
(SIGNATURE OF OWNER/OPERATOR) Cindy Stafford, Director of Operations

3-4-03  
(DATE)

Mar-13-2003 04:43pm From-SC DHEC AIR QUALITY

18038984281

T-180 P.001/001 F-581



## ASBESTOS ABATEMENT PROJECT LICENSE

Revised

License Number: N0303063

2600 Bull Street  
Columbia, SC 29201-1708COMMISSIONER:  
C. Earl HunterBOARD:  
Bradford W. Wyche  
ChairmanMark B. Kent  
Vice ChairmanHoward L. Brilliant, MD  
Secretary

Carl L. Brazell

Louisiana W. Wright

L. Michael Blackmon

Lawrence R. Cawning, Jr, DMD

CINDY BLACKBURN  
CONTAMINANT CONTROL INC  
PO BOX 3409  
MATTHEWS, NC 28106

910-484-7000

SITE: PIEDMONT NATURAL GAS  
LOCATION: 686 N PINE ST, SPARTANBURG  
AMOUNT: 814 SF Ceiling Texture, 1269 SF Floor Tile

This license is issued on the basis of information provided in your asbestos abatement notification received Postal Mail March 11, 2003. Please refer to the license number above whenever you communicate with DHEC about this project. Use of this license indicates your agreement that the information herein is accurate. This license is non-transferable and is issued subject to the following conditions.

I. Removal or other abatement activities which have the potential to disturb friable asbestos shall begin March 17, 2003, and shall be completed on March 21, 2003. If there is any change in these dates, you must notify DHEC in accordance with applicable States and Federal regulations.

II. You may verify the date for starting asbestos removal by calling the District Air Section Manager in Spartanburg, Ronald Garrett at phone 864-596-3800.

III. Based on the information you have provided, you must pay a fee of \$0.00 for this project. Your payment in the amount of \$0.00 has been received. You will be billed for any amount due. If the amount of asbestos material abated increases after the project has begun, you must amend your notification and pay any additional fees due.

IV. You are hereby authorized to dispose of asbestos waste from this project at the Palmetto Landfill - 422401-1101. Authorization is valid only for the amount of asbestos indicated above, and for a reasonable amount of other asbestos-contaminated materials generated during this project. You must obtain prior approval for disposal from the landfill operator. There shall be no leakage or spillage during transport. Authorization for disposal shall expire twenty (20) days after March 21, 2003 in condition I. above.

V. At the conclusion of this project, you must submit a completed copy of your Waste Shipment Record to DHEC in Columbia.

VI. The SCDHEC Division of Solid Waste Planning & Recycling also has rules which govern the disposal of materials that have come in contact with lead-based paint. Please contact the Bureau of Land and Waste Management at (803) 896-4000 for additional information.

For further information about asbestos abatement and disposal requirements, please contact the Asbestos Section at (803) 898-4289.

Issued: March 12, 2003

Office Code: \_\_\_\_\_

cc: Administrator of Palmetto Landfill  
Ronald Garrett, APPALACHIA III  
CORRECTED LANDFILL 3/11/03By: 

Bureau of Air Quality

**TITAN Atlantic Group**  
A Terracon Company

2020-E Starita Road  
Charlotte, North Carolina 28206  
(704) 509-1777 Fax: (704) 509-1888

March 25, 2003

Mr. Mark E. McGary  
Duke Energy  
6615 Craig Street  
Building 5643  
Mail Code TV02B  
Charlotte, North Carolina 28214-1706

Subject: **Report of Clearance Air Testing**  
*Duke Energy Spartanburg (Former Piedmont Natural Gas)*  
Spartanburg, South Carolina  
Titan Project No. 71037071

Dear Mr. McGary:

Between March 17 and March 21, 2003, Titan Atlantic Group, Inc. (Titan) representative Mr. James Jones visited the Duke Energy Building located at 686 North Pine Street in Spartanburg, South Carolina. The purpose of our visit was to perform Phase Contrast Microscopy (PCM) area air sampling during and after the removal and disposal of approximately 1200 square feet of asbestos-containing textured ceiling and 1700 square feet of asbestos-containing 9"x 9" floor tile and associated mastic throughout the building. The samples were analyzed by air monitor, Mr. James Jones (SC License Number AS00009).

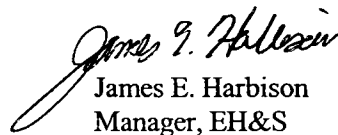
The results of clearance air sampling were found to be below the South Carolina Public Exposure Limit of 0.01 fibers per cubic centimeter (f/cc) of air. A summary table of clearance air sampling results is attached.

Titan is pleased to have been of assistance to you on the project and looks forward to our continued association. If you have any questions concerning this project, please contact us at (704) 509-1777.

Sincerely,

**TITAN ATLANTIC GROUP, INC.**

  
James W. Jones  
Environmental Specialist

  
James E. Harbison  
Manager, EH&S

JWJ  
Attachment

Arizona ■ Arkansas ■ California ■ Colorado ■ Georgia ■ Idaho ■ Illinois ■ Iowa ■ Kansas ■ Kentucky ■ Minnesota ■ Missouri  
Montana ■ Nebraska ■ Nevada ■ New Mexico ■ North Carolina ■ Oklahoma ■ Tennessee ■ Texas ■ Utah ■ Wisconsin ■ Wyoming

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**RESULTS OF AIR SAMPLE ANALYSIS**  
**Duke Energy Spartanburg**  
**686 North Pine Street**  
**Spartanburg, South Carolina**  
**Titan Project No. 71037071**

Sample Date	Activity	Sample Number	Sample Location/Type	Duration (Minutes)	Flow Rate (Liters/Minute)	Fiber concentration (Fibers/cc)
<b>3/18/03</b>						
	Removal					
		001	Load Out	205	4.0	<0.0033
		002	Decon Entrance	205	4.0	<0.0033
		003	Exhaust	205	4.0	<0.0033
		004	Field Blank	---	---	0 Fibers/ 100 Fields
		005	Field Blank	---	---	0 Fibers/ 100 Fields
<b>3/19/03</b>						
	Removal					
		001	Exhaust	240	4.0	<0.0028
		002	Load Out	240	4.0	<0.0028
		003	Decon Entrance	240	4.0	<0.0028
		004	Load Out	285	4.0	<0.0024
		005	Exhaust	285	4.0	<0.0024
		006	Decon Entrance	285	4.0	<0.0024

Sample Date	Activity	Sample Number	Sample Location/Type	Duration (Minutes)	Flow Rate (Liters/Minute)	Fiber concentration (Fibers/cc)
3/19/03						
	Removal					
		007	Field Blank	—	—	0 Fibers/ 100 Fields
		008	Field Blank	—	—	0 Fibers/ 100 Fields
3/20/03						
	Removal					
		001	Exhaust	280	4.0	<0.0024
		002	Load Out	280	4.0	<0.0024
		003	Decon Entrance	280	4.0	<0.0024
		004	Load Out	160	4.0	<0.0042
		005	Exhaust	160	4.0	<0.0042
		006	Decon Entrance	160	4.0	<0.0042
		007	Field Blank	—	—	0 Fibers/ 100 Fields
		008	Field Blank	—	—	0 Fibers/ 100 Fields
3/21/03						
	Clearance					
		001	Inside Work Area	120	10.0	<0.0023
		002	Inside Work Area	120	10.0	<0.0023



Sample Date	Activity	Sample Number	Sample Location/Type	Duration (Minutes)	Flow Rate (Liters/Minute)	Fiber concentration (Fibers/cc)
----------------	----------	------------------	----------------------	-----------------------	------------------------------	---------------------------------------

3/21/03

Clearance

003	Inside Work Area	120	10.0	<0.0023
004	Field Blank	---	---	0 Fibers/ 100 Fields
005	Field Blank	---	---	0 Fibers/ 100 Fields