

January 2013

**DRAFT DECISION MEMORANDUM**

FROM: Carolyn Minnich

TO: Hanna Assefa  
Bruce Nicholson

Subject: AquAir Facility  
13300 Sam Neely Road  
Charlotte, Mecklenburg County  
Brownfields Project Number 11043-07-060

Based on the following information, it has been determined that the above referenced site, whose intended use is restricted use as a industrial (light and heavy), office, and commercial.

Contaminated Media:

Soil, groundwater, and vapor

Potential Receptors:

Workers (office/construction/outdoor/indoor), trespassers

Analytical Data

GROUNDWATER

Groundwater contaminants in micrograms per liter (the equivalent of parts per billion), the standards or screening levels for which are contained in Title 15A ("15A") of the North Carolina Administrative Code (NCAC), Subchapter 2L ("2L"), Rule .0202 (January 1, 2010 version), or the 2L Groundwater Interim Maximum Allowable Concentrations ("IMACs", October 1, 2010 version))

**See excel Data Tables,**

SOIL

Areas of concern are 1) vanadium pellet storage; 2) former septic tank and associated drainage field, and 3) an area beneath the footprint of the former production building. In February 1999, surface occurrences of vanadium pellets and associated soil were removed and transported to CMS facility for disposal. In May 2000, concrete floors in former laboratory and production buildings were removed plus one to two feet of soil underlying the slab were removed.

Eleven areas of concern for soil/sediment were identified in Soil Assessment Report by SM&E. Chromium is present on site, but hexavalent concentrations are below state standards and trivalent does not exceed standards.

Lots of historical data. See word document for tables. You can assume the soil with exceedances will have restrictions on them. In the area of the former production area, on the Shield Map it is Group 3,4,5,6 portions of the site.

### SOIL GAS

Soil gas contaminants in micrograms per cubic meter, the screening levels for which are derived from Industrial Vapor Intrusion Screening Levels of the Inactive Hazardous Sites Branch of DENR's Superfund Section (February 2012 version):

### **See excel Data Tables,**

Note, sample SSGS-4 is the worst case sample. It was not included in the draft table because it was so hot, the laboratory detections were way above state standards. It is in the area of the former production building. This data point needs to be added to the table, but not sure how to since we would have to list all contaminants. *Suggestions?*

### INDOOR AIR

Not Applicable because no buildings.

### SURFACE WATER

An intermittent stream is located on the site. Samples will be required in LURs.

### Work to Be Performed:

a. No use may be made of the Property other than for industrial, office, retail and, if DENR issues prior written approval, other commercial uses. For purposes of this restriction, the following definitions apply.

i. "Industrial" refers to the assembly, fabrication or processing of goods or materials.

ii. "Office" refers to the rendering of business or professional services.

iii. "Retail" refers to the sale of goods, products, or merchandise directly to the consumer.

iv. "Commercial" refers to a business enterprise. Child care centers or adult care center are prohibited.

b. Physical redevelopment of the Property in the “Area of Potential Soil Contamination” may not occur other than in accord, as determined by DENR, with a Environmental Management Plan approved in writing by DENR in advance (and revised to DENR’s written satisfaction prior to each subsequent redevelopment phase) that is consistent with all the other land use restrictions and describes redevelopment activities at the Property, the timing of redevelopment phases, and addresses health, safety and environmental issues that may arise from use of the Property during construction or redevelopment in any other form, including without limitation:

i. soil and water management issues, including without limitation those resulting from contamination identified in the Environmental Reports;

ii. issues related to potential sources of contamination referenced in Exhibit 2; and

iii. contingency plans for addressing newly discovered potential sources of environmental contamination (e.g., tanks, drums, septic drain fields).

c. Within 90 days after each one-year anniversary of the effective date of this Agreement for as long as physical redevelopment of the Property continues (except that the final deadline shall fall 90 days after the conclusion of physical redevelopment), the then owner of the Property shall provide DENR a report subject to written DENR approval on environment-related activities since the last report, with a summary and drawings, that describes:

i. actions taken in accordance with the plan required by subparagraph 13.b above;

ii. soil grading and cut and fill actions;

iii. methodology(ies) employed for field screening, sampling and laboratory analysis of environmental media;

iv. stockpiling, containerizing, decontaminating, treating, handling, laboratory analysis and ultimate disposition of any soil, groundwater or other materials suspected or confirmed to be contaminated with regulated substances; and

v. removal of any contaminated soil, water or other contaminated materials (for example, concrete, demolition debris) from the Property (copies of all legally required manifests shall be included).

d. Surface water at the Property may not be used for any purpose without the prior written approval of DENR.

e. Unless compliance with this Land Use Restriction is waived in writing by DENR in advance in regard to particular activity, no activities that encounter, expose, remove or use groundwater (for example, installation of water supply wells, ponds, lakes or swimming

pools, or construction or excavation activities that encounter or expose groundwater) may occur on the Property without prior sampling and analysis of groundwater to the written satisfaction of DENR in any areas proposed for such activities, and submittal of the analytical results to DENR. If such results reflect contaminant concentrations that exceed the standards and screening levels applicable to the uses authorized for the Property, the groundwater-related activities proposed may only occur in compliance with any written conditions DENR imposes.

f. Beginning in January following the year in which the Notice of Brownfields Property referenced below in paragraph 18 is recorded, and for a minimum of five (5) (PD has asked for 3 vs 5 yrs), sampling events, the owner(s) of the Property shall effect sampling of monitoring wells AMW-102, 104, AMW-103, and AMW-108 and sampling of the adjacent stream from an upgradient location and location near well AMW-108 in accordance with the most current version of the Guidelines of the Inactive Hazardous Sites Branch of DENR's Superfund Section. The groundwater and stream samples collected shall be analyzed by U.S. Environmental Protection Agency's Methods 8260 or by another method approved in advance, in writing, by DENR or its successor in function. After the completion of the five year period, the Prospective Developer may submit to DENR a request to terminate such sampling including the public health rationale for such termination. The then owner of the Property's affected portion shall sample and maintain the well. If one or all of the wells identified in this paragraph need to be abandoned for site redevelopment purposes, the then owner of the Property that contains the well(s) shall notify DENR at least 30 days in advance of the abandonment and the wells shall be abandoned in accordance with applicable regulations. In the abandonment notification, the then Property owner shall provide for DENR review and approval a rationale as to why the well(s) do not need to be replaced or the proposed location and construction details of a replacement well or wells.

g. During physical redevelopment, soil on the Property may not be disturbed except in accordance with the plan required by subparagraph 13.b. above. After the conclusion of the physical redevelopment as determined by DENR, no activity that disturbs soil on the Property in the "Area of Potential Soil Contamination" as delineated on the plat component of the Notice of Brownfields Property referenced below in paragraph 18, may occur unless and until DENR states in writing, in advance of the proposed activity, that said activity may occur if carried out along with any measures DENR deems necessary to ensure the Property will be suitable for the uses specified in subparagraph 13.a above while fully protecting public health and the environment, except: in connection with *de minimis* soil removals to depths not exceeding 6 inches, mowing and pruning of above-ground vegetation; and, for emergency repair of underground infrastructure, provided that DENR shall be given written notice (if only by email) of any such emergency repair no later than the next business day, and that any related assessment and remedial measures required by DENR shall be taken.

h. No building may be constructed on the Property unless and until DENR determines in writing that:

i. the building would be sufficiently distant from the Property's groundwater and/or soil contamination that the building's users, public health and the environment will be protected from risk from vapor intrusion related to said contamination; or

ii. a plan for a vapor intrusion mitigation system, approved in writing by DENR in advance and including a proposed performance assessment for demonstration of the system's protection of the building's users, public health and the environment from risk from vapor intrusion, is implemented to the satisfaction of a North Carolina-licensed professional engineer as reflected by implementation documentation sealed by said engineer.

i. None of the contaminants known to be present in the environmental media at the Property, including those appearing in Exhibit 2 to this Agreement, may be used or stored at the Property without the prior written approval of DENR, except in *de minimis* amounts for cleaning and other routine housekeeping activities.

j. The Property may not be used for agriculture or grazing, without the prior written approval of DENR.

k. The Property may not be used as a park or for sports of any kind, including, but not limited to, golf, football, soccer and baseball, without the prior written approval of DENR.

l. The owner of any portion of the Property where any existing, or subsequently installed, DENR-approved monitoring well is damaged shall be responsible for repair of any such wells to DENR's written satisfaction and within a time period acceptable to DENR, unless compliance with this Land Use Restriction is waived in writing by DENR in advance.

m. Neither DENR, nor any party conducting environmental assessment or remediation at the Property at the direction of, or pursuant to a permit, order or agreement issued or entered into by DENR, may be denied access to the Property for purposes of conducting such assessment or remediation, which is to be conducted using reasonable efforts to minimize interference with authorized uses of the Property.

n. During January of each year after the year in which the Notice referenced below in paragraph 18 is recorded, the owner of any part of the Property as of January 1<sup>st</sup> of that year shall submit a notarized Land Use Restrictions Update ("LURU") to DENR, and to the chief public health and environmental officials of Mecklenburg County, certifying that, as of said January 1<sup>st</sup>, the Notice of Brownfields Property containing these land use restrictions remains recorded at the Mecklenburg County Register of Deeds office and that the land use restrictions are being complied with, and stating:

i. the name, mailing address, telephone and facsimile numbers, and contact person's e-mail address of the owner submitting the LURU if said owner acquired any part of the Property during the previous calendar year; and

ii. the transferee's name, mailing address, telephone and facsimile numbers, and contact person's e-mail address, if said owner transferred any part of the Property during the previous calendar year.

iii. in the case of the owner of the part of the Property affected by subparagraph 13.f. above, the results of the sampling required by said subparagraph, and

iv. whether any vapor barrier and/or mitigation systems installed pursuant to subparagraph 13.h above are performing as designed, and whether the uses of the ground floors of any buildings containing such vapor barrier and/or mitigation systems have changed, and, if so, how.