



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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November 23, 2005

RE: Comments-Supplemental and Phase II Site Investigation Report
Bay Street Tiverton Study Area
Received August 15, 2005
Case #2002-065(a)

Dear Mr. Tomka:

The Rhode Island Department of Environmental Management has received and reviewed the Southern Union Company-New England Gas Division's (NEGAS) submission of the Supplemental and Phase II Site Investigation Report (SSI) that was received on August 15, 2005. Please respond in writing to the following comments on or before February 1, 2006.

1. Southern Union Company-New England Gas Company (NEGAS) has proposed to conduct a Human Health Risk Assessment (HHRA) as part of the Bay Street Neighborhood Study Area Site Investigation Report submittal that was received on August 15, 2005. The Department indicated at that time, that it had strong reservations about allowing NEGAS to proceed with the proposed HHRA given that NEGAS did not own or control any of the properties being investigated. Rule 8.08 and more specifically, A.ii (3) Points of Compliance for Soils of the Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (the Remediation Regulations) requires that the Performing Party (NEGAS in this case) provide the following in writing to the Department:

The Rule states under number #3 that the Performing Party shall provide formal written documentation to the Department demonstrating the performing party's control over the full aerial extent of the Method 1 Residential Direct Exposure Criterion exceedance including, but not limited to the following, as appropriate:

- a. Documented acceptance of any residential direct exposure criterion developed pursuant to Rule 8.04 (Method 3 Remedial Objectives) and all supporting documentation used in their (NEGAS) derivation from all landowners whose property is impacted by the release; and

- b. An environmental land usage agreement entered into by all impacted land owners pursuant to Rule 8.09 (Institutional Controls), if the exposure assumptions made in the development of the Method 3 Remedial Objective are such that they need to be institutionally maintained in order to guarantee long-term protection of human health and the environment.

The Department will therefore require that securing institutional controls from the property owners (in the form of Department approved Environmental Land Usage Restrictions (ELUR's)) will be required to proceed with any review of the proposed HHRA work plan to address these issues and ensure the long-term permanency of the remedy.

2. As previously stated in the comments issued by RIDEM concerning the Phase I SIR, the Supplemental and Phase II SIR does not historically document anything about the nature and type of MGP facility, which was operated by Fall River Gas Co., and its location in relation to the Bay Street Neighborhood. ENSER International states in their Immediate Response Action Plan developed for New England Gas Company dated July 2004 and received July 30, 2004 that “As directed by MADEP, NEGC has reviewed the historical records of the former Fall River Gas Company to determine what information is available with respect to offsite disposal of Coal Gasification Related Materials (CGRM) in Massachusetts. Those records indicate that some of the material was sold as product, while other material was hauled offsite for disposal. However, the historical records do not identify any waste disposal locations in Massachusetts or elsewhere”. Although NEGAS states their records do not identify any disposal in Massachusetts or elsewhere, the Department cannot rule out that these suspect Former Manufactured Gas Plant (FMGP) waste materials from the former Charles Street facility may have wound up in the Bay Street neighborhood in Tiverton. The Department therefore renews its previous request during the Phase I comments for NEGAS to provide documentation concerning historical information concerning the neighborhood, the surrounding area along with historical information as it relates to the former Fall River Gas Company and its past operations and waste material disposal practices.
3. The Management of Manufactured Gas Plant Sites reference document cited by Environ in Phase I site investigation on behalf of NEGAS clearly identify contaminants of potential concern (COPCs), and ranges of COPCs that may be found in waste from a former MGP. The list includes Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Cyanide(s), Sulfides, Phenolics, and approximately 16 Inorganics + Metals including Arsenic, spent Oxides and Inorganic Nitrogen. The reference document also states that herbicides, pesticides and solvents must be considered when investigating and evaluating a MGP site. The reference document further includes the EPA Contract Laboratory Program (CLP) list with additional compounds from the RCRA perspective that may be COPCs.

4. It appears from a review of the 2005 SSI Report that there has been a terminology change since the Phase I SIR concerning Contaminants of Potential Concern (COPC's) associated with Former Manufactured Gas Plant (FMGP) waste materials. VHB now uses the term "non-native fill material" which has been identified by VHB as being associated with typical urban fill.

Please explain how NEGAS drew the clear distinction between "non-native" and "native" fill. It is highly likely that suspected FMGP waste materials identified by ENSER has being sold and disposed of offsite meet minimal characteristics identified by VHB's definition "non-native material" in the report and wound up being disposed of in the Bay Street Neighborhood.

So as not to confuse any readers, prior reports, or these comments and to keep consistency for purposes of the Departments review, the Department will continue to refer to non-native fill material with COPC's as "suspect FMGP waste materials".

5. The Department does not concur with NEGAS's interpretation of the laboratory data results as mentioned in the Executive Summary and in the text of the document. For example:
 - a. NEGAS states that of the 1910 samples obtained, approximately 53% or 1012 soil samples do not show suspect FMGP waste materials or Residential Direct Exposure (RDECs) Exceedances. Based upon this interpretation by NEGAS, the Department may then conclude that balance of samples, 46% or 897 samples, do identify suspect FMGP waste materials and RDEC exceedances which are jurisdictional under the Remediation Regulations.
6. Even though VHB, on behalf of NEGAS, has stated that they do not find a "strong relationship" between the suspect FMGP waste materials and the RDEC exceedances, however, VHB has not ruled out that there is a correlation between the suspect FMGP waste materials what has been identified disposed of within the Bay Street Neighborhood Study Area.
7. Table 12 is in error. Five properties in Category 2 belong in Category 1. They are 1505,0817,0301D, 0301B and 0301.
8. Executive Summary Page ES-2 –The report identifies Block 17, portions of Block 16 and the corner of Bay and Judson Street (a suspected former dump) as source areas. The Department disagrees that these are source areas. These three areas, along with other areas within the Bay Street Neighborhood Study Area have been found to contain high concentrations of hazardous substances that appear to be

attributable to the suspect FMGP waste materials that are believed to have originated from the former MGP facility on Charles Street in Fall River. The identification of these particular areas as source areas by NEGAS seems to conflict with ENVIRON's conclusions as part of the Phase I Report discussions when they selected 25 properties in the approximate middle of the Bay Street Neighborhood Study Area for further evaluation and further investigation due to the Method 1 RDEC exceedances observed. Please explain.

9. Executive Summary ES-#3, paragraph 4- NEGAS states "Therefore, NEGAS does not, by the submission of this SSIR or by discussion of remedial alternatives, accept responsibility for or commit to implement any of the remedial alternatives that might ultimately be determined to be appropriate following the conclusion of the risk assessment."
 - a. Is NEGAS stating they have no intentions of conducting any remedial work on these properties now or after performance of a risk assessment if it were allowed?
 - b. Please explain then why the Department and the property owners would even consider the HHRA work plan?
10. Executive Summary Page ES-4: The Department does not concur with NEGAS's tabulation of the sites into the categories. As more specifically identified in Table 12 on Page 37 of the report and after review of the validated data for 2003 and 2005, the Department believes that there are 81 properties in Category 1; 8 properties in Category 2; and 6 properties in Category 3.
11. Executive Summary Page ES-4: The report does not indicate that NEGAS has been provided with other data and information collected from the study area. The information that NEGAS has been given includes, but is not limited to the history of the area and including some of history of the former Charles Street MGP facility.
12. Executive Summary Pages #4-#5: There are several things listed in the report, Item#1-8 for example, which are being used as NEGAS's basis for concluding that the investigation is not complete. The Department does not concur with NEGAS opinion that the SI is not complete. It is the Department's understanding that some of the outstanding items listed as not being complete were not tasked to VHB to do under the SI. In addition, NEGAS's claims that there has not been enough time to complete the work. The investigation began in 2003 and most of the items here could have been easily collected or obtained by NEGAS.

There has been plenty of data collected to propose Remedial Alternatives for evaluation for this entire study area, regardless of the few properties that did not provide access and the recently approved Supplemental SI's for three lots. Also, the Department never requested a background Arsenic Study to be performed by VHB.

Arsenic concentrations throughout the Study Area are not considered background, because the Study Area does not meet the requirements for Rule 12.03 of the Remediation Regulations. Arsenic is one Potential Contaminant of Concern and included along with other hazardous materials as part of the suspected FMGP waste materials. VHB was provided with a copy of the Ransom Environmental report concerning the history of the area that has been very useful in understanding the Bay Street Neighborhood Study Area and the former Charles Street MGP facility.

On June 21, 2005, VHB requested an extension for the SSIR submittal to until 30 September 2005, and the reasons given were that all the data would not be finalized until July 18, 2005 and that VHB needed the time to write the report. On Page ES #5 of the SIR, NEGAS lists other reasons that were not mentioned by VHB.

13. The Department has yet to receive a copy of the Final Road Survey that was performed. The copy previously provided to RIDEM was considered to be a draft according to NEGAS representatives at the time.
14. Introduction-paragraph 1- Although NEGAS states that “RIDEM alleges that portions of the fill may have come from a former MGP facility”, as stated in Comment 1, it is NEGAS’s consultant ENSER which states that based upon their client, NEGAS review records of the historical MGP operations that, “those records indicate that some of the material was sold as product, while other material was hauled offsite for disposal”. Given that NEGAS has yet to produce any historical records concerning disposal of the waste material generated by this MGP facility, one can draw the conclusion that the waste materials were disposed of within this neighborhood and other areas of Tiverton and Fall River.
15. NEGC reports on Page 2 of the introduction that the SIR report is necessarily limited in a variety ways (8 identified) and that NEGC’s investigation of the site history is ongoing and may reveal different or contrary information than that reported by VHB to date.
 - a. Is NEGC conducting a separate investigation that does not involve VHB?
 - b. Has any information previously reported by VHB to date been found to be different or contrary?
16. Study Area Description, Page 4: There has been a large amount of information provided to VHB concerning the area and the history of the area in the Ransom Environmental report. Also, to claim that NEGAS has not had enough time to research the history is hard to believe since the investigation began over three years ago. Again as stated in Comment 11, some of the claims concerning delays appear to be items that VHB, to the Department’s knowledge was never tasked to do on behalf of NEGAS.

17. Page 5 Previous Technical Reports: Although VHB has declined to list these reports; Investigation Reports and conclusions prior to 2003 are part of the public record. In addition, per 7.03 of the Remediation Regulations all previous existing environmental information is within the scope of a Site Investigation.
18. Page 7- The ENVIRON draft Human Health Risk Assessment (HHRA) provided during Phase I was never approved or reviewed by the regulatory agencies. During the review of the Phase I SIR report, reviewers raised questions concerning the contents of the SIR and HHRA report where Environ apparently erred in initial calculations, defaults and conclusions. These initial findings were provided to Environ at a meeting with DEM, NEGAS, SU, ENVIRON, VHB, RIDOH and EPA (telecom).
19. Page 8: In the SIR, NEGAS states that the Simpson family formally owned Lots 1605 and 1606B. There is no property ownership presented in this Phase II or the Phase I SIR that indicates that anyone by the name of Simpson owned these properties. Even if this were found to be true, it does not dismiss the Department's belief that the source of some of the suspected FMGP waste materials came from the former NEGAS MGP facility. Even after the EPA removal action for the high Mercury contaminated soils, there is still contamination on the Carvalho property that is suspected to have come from the former MGP facility.
20. Page 8-ATSDR: The conclusions drawn by ATSDR are ATSDR's opinion based upon only the first sampling in 2003. They did not include soil sampling data obtained in 2004/2005 by VHB or EPA in their assessment and the Department and RIDOH raised concerns with ATSDR about finalizing the document.
21. Page 9 and 10: Arsenic, Lead and PAH's – The report fails to clearly state that there are numerous soil sample concentrations of Arsenic, Lead and PAH's, along with other COC throughout the Bay Street Neighborhood Study which are in exceedance of the Department's Residential and Industrial Direct Exposure Criteria set forth in the Remediation Regulations. These exceedances need to be appropriately addressed.
22. Page 11 Other ATSDR Findings: ATSDR has no idea where the mercury concentrations in soil came from in the neighborhood soils that were tested other than the high concentrations found in the soils and associated felt material in the rear portion of Carvalho property. Mercury, a COC of former MGP waste material, was found in varying concentrations throughout the Bay Street Neighborhood Study Area.
23. Page 12 –State Avenue Study Area (ENSER Report)- This section of the report fails to acknowledge what ENSER states in Comment #1 above that they reviewed historic records of the gas company which identify that the gas company sold materials off from its facility and also disposed of materials offsite but they

apparently do not know where the materials went for disposal. Also, to date, the Department has not heard from MADEP as to whether they concur with the ENSER report or findings. However, regardless of what ENSER concluded in their report for MADEP, the soil contamination within the Bay Street Neighborhood Study Area is in Rhode Island and jurisdictional under Federal and State of R.I. regulations.

24. Page 17: Bottom of the Page- The report specifically identifies that the RIDEM RDEC were used to evaluate the data for most of the properties within the study area. However, it further states that the RIDEM I/C were used to evaluate Lots 0815A and 0817. Regardless of whether a commercial business is currently operating on these properties, the RIDEM RDEC are the applicable criteria for determining if a property is jurisdictional under the Remediation Regulations.
25. Page 18-: The Report again repeats the same information previously stated in the beginning of the report and commented on by RIDEM in Comment #4. Environ's calculated soil-screening criteria for lead and benzo (a) pyrene have never been approved by RIDEM, RIDOH or EPA.
26. Page 19: As stated in Comment #3 above, reference documents identified by Environ during the 2003 round of investigation identify numerous other PCOC's from historical MGP facilities. Vanadium, mentioned on this page was selected as an indicator compound by RIDEM through consultation with USEPA, which historically can be associated with MGP waste materials. Based upon the soil sampling results results of the 2004/2005, vanadium was found in measurable concentrations throughout the Bay Street Neighborhood Study Area.
27. Page 19 and 20, Arsenic – The report fails to mention that Arsenic is a PCOC of MGP waste materials and that capping provisions under Section 12 of the Remediation Regulations are not applicable for the Bay Street Neighborhood Study Area because there were several soils samples above the 15 part per million maximum concentration allowed and other jurisdictional COC's have been identified thorough out the area.
28. Page 21: Beryllium- For the record and to clarify this report, the Department has never approved a background study for Beryllium, and the Compliance Sampling section of the Remediation Regulations is only applicable after a soil removal action has been approved and implemented. Exceedances of the RDEC for Beryllium are present throughout the Bay Street Neighborhood Study Area and Beryllium is a hazardous substance in suspected FMGP waste materials.
29. Page 22, Lead: The Department does not concur with NEGAS's interpretation of the laboratory data results as mentioned in the Executive Summary and in the text of the document concerning Lead. The NEGAS report claims that 59% of the 1910 total soil samples obtained found Lead greater than RDEC but not in association

with what the report identifies as non-native material. This is strictly NEGAS's opinion as to the source of the Lead contamination detected. One could also conclude that the Lead contamination was from FMGP waste materials and in association with this non-native material when it was deposited, also spread by wind and therefore jurisdictional under the Remediation Regulations.

30. Page 22, Lead: The report claims that there are "no strong correlations" with the non-native materials and Lead discovered in the soil samples obtained. The Department does not concur with that assumption given Comment 28 above and also that NEGAS has not ruled out their there was some correlation between the waste materials and the Lead concentrations discovered.
31. Page 22 and 23, Lead: The report states that seven (7) properties were tested for lead in soil along the drip edges of the houses and only on three (3) of these 7 properties had paint chips observed. Also, the report indicates that 28% of the seven properties tested saw non-native materials, which is approximately 2 properties. Given this information, it would seem to conclude that only five properties had Lead exceedances possibly associated with Lead paint.
32. Page 23: Other metals that exceed RIDEM RDEC- All of the metals listed in the Report which were also found to be in exceedance of the RIDEM criteria are inorganic metals associated with former MGP waste materials according to the ENVIRON reference documents.

If you have any questions please contact me by telephone at (401) 222-2797 ext 7102.

Sincerely,

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