

C. 0463

June 12, 1996

AGRA Earth & Environmental Limited
95 Scurfield Boulevard
Winnipeg MB R3Y 1G4

Attention: Mr. Harley Pankratz, P.Eng.

Dear Sir:

Re: Proposed Bioremediation Plan - Centra Gas PAH Contaminated Soil and Water

This letter acknowledges receipt and review of the Remedial Action Plan (RAP), dated June 7, 1996, prepared by AGRA on behalf of Centra Gas, for the proposed treatment of PAH impacted soil and water generated from the Centra Gas site at 35 Sutherland Avenue. The plan describes a bioremediation plan utilizing an engineered biopile to be constructed at the Mid Canada Soil Treatment Ltd. site located in Sanford, Manitoba.

Manitoba Environment is hereby providing conditional approval for the proposed plan, so as to allow for immediate project initiation. There are a few requirements which Manitoba Environment has, that are to be addressed prior to construction of the facility. These items are discussed as follows.

Detailed information as to the nature of the ESP Pro Surfactant, and the EN-101C nutrient materials, is to be submitted to this department. MSDS sheets for the products would suffice. Similarly, information for the EM-99 Microbes is required to ensure that any non-indigenous micro-organisms employed are non-hazardous and meet with import regulations.

Construction detail plans for the treatment facility are required for review and approval prior to construction.

Estimated concentrations of nutrients to be employed as part of the remedial action plan are to be submitted to this department.

Analytical testing results for PAHs must be accompanied by QA/QC verification. Manitoba Environment will also conduct analyses of soil and water samples throughout the remedial program.

Some provision of insurance will be required prior to the implementation of the remedial action program.

There will need to be some discussion between AGRA and Manitoba Environment as to the target remediation criteria for contaminated water, as the only governed PAH is benzo(a)pyrene at 0.01 ug/L for Drinking Water. Manitoba Environment is presently discussing appropriate target criteria and concentrations for treatment of the contaminated water.

Manitoba Environment appreciates the time constraints involved in implementation of this remedial action plan, therefore, this department will assist in the final provision of approval of the proposed RAP as required. Should you have any questions or require any additional information with regards to this matter, please contact Mr. Edwin Yee at 945-7069, or the undersigned.

Respectfully,

A handwritten signature in blue ink, appearing to read 'R. Lemoine', with a stylized flourish at the end.

Rick M. Lemoine, M.Sc., P.Geol.
Environment Officer
Contaminated Sites
Dangerous Goods

File No. C.0463

RML/rl