Ministry of the Environment

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Direction régionale de l'Est Bureau du district de Kingston Bureau du secteur de Cornwall 2e étage

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March 6, 2003

Mary McGuaig, Clerk Corporation of the Nation Municipality 958 Road 500 West, R.R. #3 Casselman, ON K0A 1M0

RE: Compliance Inspection Report - South Plantagenet (Fournier) Waste Disposal Site

Dear Madam:

The above-mentioned facility was inspected by Marc Robert, Sr. Environmental Officer of this office, on February 7, 2003.

Your attention is directed to Section 5.0 (Action(s) Required) and Section 6.0 (Other Inspection Findings) of the report. Please provide, by April 7, 2003/ a workplan and schedule for bringing your facility into compliance.

If you have any questions or comments, please contact Marc Robert at this office at extension 229.

Yours truly,

Michael Seguin

Cornwall Area Office

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COMPLIANCE INSPECTION REPORT

SOUTH PLANTAGENET (FOURNIER)

SOLID NON-HAZARDOUS WASTE DISPOSAL SITE

REPORT PREPARED BY THE CORNWALL OFFICE OF THE MINISTRY OF THE ENVIRONMENT, EASTERN REGION

Inspected by: Marc Robert Inspection: February 7, 2003



Solid Non-Hazardous Waste Disposal Site Inspection Report

Client: The Corporation of the Municipality of The Nation Mailing Address: Rural Route, 3, Casselman, Ontario, Canada, K0A 1M0 Physical Address: 958 Highway 500 West, The Nation, Municipality, United Counties of Prescott and Russell, Ontario, Canada Telephone: (613)764-5444, FAX: (613)764-3310 Client #: 8081-4GBRZH, Client Type: Municipal Government Inspection Site Address: South Plantagenet (Fournier) waste disposal site Address: Lot: Part Lot 3, Concession: 14, The Nation, Municipality, United Counties of Prescott and Russell District Office: Cornwall Contact Name: Title: Mary McCuaig Clerk Contact Telephone: Contact Fax: (613) 764-5444 ext (613)764-3310 **Last Inspection Date:** 2001/06/13 Inspection Start Date: Inspection Finish Date: 2003/02/07 2003/03/05 Region: Eastern

1.0 INTRODUCTION

The purpose of the Ministry of the Environment's (MOE) compliance inspection program for solid non-hazardous waste disposal sites is to ensure that these sites are in compliance with MOE legislation and control documents and are in conformance with MOE waste-related policy and guidelines.

Specifically, this includes compliance/conformance with:

- The Environmental Protection Act (EPA);
- Ontario's General Waste Regulation (O. Reg. 347);
- Ontario's Landfilling Sites Regulation (O. Reg. 232/98);
- Certificates of Approval (Cs of A); and
- Orders (Provincial Officer's Orders and/or Director's Orders)

The Nation Municipality's South Plantagenet (Fournier) municipal waste disposal site is located on the north-west quarter of Lot 3, Concession 14, of the former Township of South Plantagenet, now The Nation Municipality.

The landfill site is a medium sized site covering 30.4 hectares and can be separated into two adjoining sections: the northern portion measuring some 730 metres in length by 305 metres in width and the southern section measuring approximately 735 metres in length by 150 metres in width. The northern and southern boundaries of the site abut County Road No. 10 and No. 15 respectively. The entire site is very well screened on all sides by dense to moderate forest and is surrounded by relatively flat agricultural land.

During 1991, a Site Development and Operations Plan was created for the landfill site by McNeely Engineering Consultants Ltd.

According to the clerk for The Nation Municipality, all of the municipality's domestic waste is sent to the Laflèche Environment private landfill site, located in the neighboring municipality of North Stormont, and has been since July of 2002. Commercial (dry) waste is still sent to The Nation Municipality's open waste disposal sites such as the South Plantagenet (Fournier) site.

Photos of the South Plantagenet (Fournier) waste disposal site, taken at the time of the inspection, are included in Appendix "A" of this report.

2.0 INSPECTION OBSERVATIONS

Certificate of Approval Number(s):

Certificate of Approval No. A471801, dated April 16, 1980, included in Appendix "B" of this report.

2.1 FINANCIAL ASSURANCE:

MOE Guideline F-15 (Financial Assurance) identifies the criteria for the use of financial assurance to ensure that various regulatory requirements are met. In general, financial assurance is required as a condition of an approval under Part V of the Environmental Protection Act (EPA) for private landfill sites for which a hearing is required under Section 30 of the EPA, or which will accept non-hazardous solid industrial, commercial or domestic wastes and which have a lifetime capacity of at least 40,000 cubic meters (1500 people).

The South Plantagenet (Fournier) waste disposal site is municipally owned. Therefore, there was no record of financial assurance for the landfill site at the time of my inspection, nor is one required.

2.2 APPROVED AREA OF THE SITE:

Certificate of Approval No. A471801, dated April 16, 1980, approved the use and operation of a 30.4 hectare landfilling site for the disposal of domestic and commercial wastes.

There is no approved landfilling area (footprint) for the South Plantagenet waste disposal site, the waste footprint being the area of the landfill site where waste is deposited, covered and compacted. The size of the existing landfill site footprint is unknown. At the time of my inspection, waste was being landfilled in a northerly direction within what appeared to be the legal boundaries of the South Plantagenet waste disposal site.

2.3 APPROVED CAPACITY:

A waste disposal capacity has not been approved for the landfill site.

According to the report entitled «Township of South Plantagenet Site Development and Operations Plan for Waste Disposal Site, February 1991» by McNeely Engineering, the landfill site life can be extended to the year 2025. This estimation was based on several factors (waste generation rates, population increases, service area, etc.) that have undoubtedly changed since the report was written. It is therefore recommended that the landfill site's remaining waste disposal capacity be updated to reflect current waste management conditions.

2.4 ACCESS CONTROL:

Access to the South Plantagenet (Fournier) waste disposal site is regulated by the site's Certificate of Approval which requires «that the site be adequately fenced and locked to prevent unauthorized entry...».

Access to the site is also regulated by Section 11(2) of O. Reg. 347 which states: «Access to the site shall be limited to such times as an attendant is on duty and the site shall be restricted to use by persons authorized to deposit waste in the fill area.»

Physical access to the site is controlled by a gate that was locked at the time of my inspection and by dense vegetation to the south, west and north of the landfill site. A fence has not been built around the entire landfill site. However, a wire fence separates west and south neighbouring lands from the site.

At the time of my inspection, the site was closed to waste disposal activities and the entrance gate was closed and locked.

2.5 COVER MATERIAL:

The purpose of waste covering is to control insects, rodents, scavenging by birds, blowing litter, fires, odours and to maintain an aesthetically pleasing site appearance.

Waste covering is regulated by the landfill site's Certificate of Approval which requires that «all waste materials be covered with six (6) inches of earth cover material, at least once per week, by a proper landfilling operation.», and by Subsection 11(13) of O. Reg. 347 that states that «Waste shall be deposited in an orderly manner in the fill area, compacted adequately and covered by cover material by a proper landfilling operation.»

At the time of my inspection several large piles of uncovered waste were located in the active waste disposal area.

At the time of my inspection an adequate amount of cover material appeared to have been applied over most of the waste in the fill area of the landfill site. However, no cover material had been applied to the working face of the fill area. This was brought to the municipality's attention in the previous inspection report. Photos taken at the time of the inspection when compared to those taken during the 2001 inspection demonstrate that waste covering practices have not improved between inspections (see Appendix "A").

Where normally landfill base preparation requires the stripping of brush and trees, the municipality is instead dumping and covering waste in an area of thick brush. This is likely inhibiting proper compaction of the waste pile and contributing to the creation of landfill

leachate and gas. This was brought to the municipality's attention in previous inspection reports.

A ramp method of waste disposal, which is similar to an area method of waste placement, is being employed at the waste disposal site. However, instead of unloading incoming waste at the toe of the working face where it is spread in layers to the height of the lift and compacted and covered, waste is placed on top of the working face and pushed over the edge. This technique does not provide for compaction and covering of the fill area's working face. This was brought to the municipality's attention in the previous inspection report.

2.6 WASTE BURNING:

The burning of waste at the landfill site is regulated by its Certificate of Approval which forbids the burning of domestic waste at the site.

At the time of my inspection there was no evidence of burning of domestic or other waste at the landfill site. A stockpile of waste wood was evident at the landfill site however it was not clear if the wood was being accumulated for burning or for other purposes.

2.7 GROUNDWATER/SURFACEWATER IMPACT:

At the time of my inspection there was no obvious evidence of groundwater and/or surface water impact such as leachate springs, leachate ponding or wastes having been deposited in water.

However, groundwater and surface water monitoring were conducted during 1999 and at that time it was determined that the landfill site was likely out of compliance with MOE Guideline B-7 (Reasonable Use Concept) along the south/southeastern property boundary. In other words, leachate from the waste disposal site was in all likelihood contaminating the groundwater beyond the boundaries of the site. The report concludes that the flow of groundwater is in a south-easterly direction throughout the site.

Three drainage ditches traverse the waste disposal site from west to east providing drainage for the waste disposal site and for agricultural lands on either side of the site. The most southerly ditch (ditch 1), located in the southern portion of the site, drains eastwards into Beaver Creek which drains into the Scotch River then into the South Nation River. It is the same for the middle drainage ditch (ditch 2) which is located in the northern portion of the site. The most northerly ditch (ditch 3), located in a gully, flows westward across the waste disposal site and then north towards the South Nation River.

According to the 1999 Monitoring Report, it appears that the site was also in non-compliance with respect to impacts on surface water quality, most notably in ditch 1.

Subsection 11(7) of O. Reg. 347 states: «Where there is a possibility of water pollution resulting from the operation of a landfilling site, samples shall be taken and tests made by the owner of the site to measure the extent of egress of contaminants and, if necessary, measures shall be taken for the collection and treatment of contaminants and for the prevention of water pollution».

The MOE reviewed the 1999 Monitoring Report and recommended the implementation of more rigorous groundwater and surface water monitoring programs were recommended for the landfill site. I contacted The Nation Municipality and was told that monitoring reports had been prepared for 2000 and 2001. However, this information had not been sent to the MOE for review and consequently was not available at the time of my inspection.

2.8 LEACHATE CONTROL SYSTEM:

Subsection 11(5) of O. Reg. 347 states: «Waste shall be placed sufficiently above or isolated from the maximum water table at the site in such a manner that impairment of groundwater in aquifers is prevented and sufficiently distant from sources of potable water supplies so as to prevent contamination of the water, unless adequate provision is made for the collection and treatment of leachafte.»

Although, a leachate control system is not presently required for the landfill site by way of the site's Certificate of Approval or other control documents, additional monitoring is required at the site to better understand the impact of the landfill site's leachate on neighboring ground and surface waters and to assess the need for some type of leachate control system.

2.9 METHANE GAS CONTROL SYSTEM:

A methane gas control system is not required for the South Plantagenet (Fournier) waste disposal site nor has one been installed. At the present time, there does not appear to be a need for a methane gas control system at the site. No strong odours were noticeable at the time of my inspection.

2.10 OTHER WASTES:

At the time of my inspection there was no evidence that wastes other than solid non-hazardous wastes are being deposited at the South Plantagenet (Fournier) waste disposal site.

Refrigeration equipment containing ozone depleting substances was not discovered amongst the small pile of scrap metal at the site.

Waste tires, wood waste and a small amount of waste metal for recycling are being stockpiled at locations of the waste disposal site that are separate from the current waste landfilling area.

3.0 REVIEW OF PREVIOUS NON-COMPLIANCE ISSUES

A review of the MOE's Occurrence Report Information System (ORIS), since January 1, 1998 to date, revealed one occurrence on the South Plantagenet waste disposal site which pertained to the Ministry's 1998 compliance inspection of the landfill site.

There are presently no mandatory abatement requirements imposed upon The Nation Municipality for the South Plantagenet waste disposal site.

The following are recommendations found in the Ministry's 1998 and 2001 compliance inspections of the landfill site that do not appear to have been followed:

- Steps should be taken to update and abide by the 1991 Site Development and Operations Plan by McNeely Engineering Consultants Ltd. This would facilitate compliance with Subsection 11(17) of O. Reg. 347, ensure proper on-site drainage and recommend correct daily operations and an efficient method of waste covering and compaction. The updated plan should include details on site closure and be incorporated into the landfill site's C of A by way of an amendment to the C of A.
- The boundaries of the waste disposal site and of the waste placement area should be clearly marked to ensure that waste is placed within the footprint and not beyond the legal boundaries of the landfill site and that adequate buffer areas are maintained.

4.0 SUMMARY OF INSPECTION FINDINGS (HEALTH/ENVIRONMENTAL IMPACT)

Was there any indication of a known or anticipated human health impact during the inspection and/or review of relevant material, related to this Ministry's mandate ? N_0

Specifics:

Was there any indication of a known or anticipated environmental impact during the inspection and/or review of relevant material?

No

Specifics:

Was there any indication of a known or suspected violation of a legal requirement during the inspection and/or review of relevant material which could cause a human health impact or environmental impairment?

Specifics:

Was there any indication of a potential for environmental impairment during the inspection and/or the review of relevant material?

Yes

Specifics: Waste landfilling at the South Plantagenet (Fournier) waste disposal site is likely impairing off-property ground and surface waters.

5.0 ACTION(S) REQUIRED

- Should The Nation Municipality continue to use the South Plantagenet waste disposal site for the disposal of commercial (dry)
 waste, it must take steps to submit an application to amend the landfill site's C of A to include an updated operations and
 development plan for the site.
- 2. The Nation Municipality must adopt an efficient method of waste covering and compaction at the site.
- 3. The Nation Municipality must initiate the monitoring program as recommended by the MOE during the review of the 1999 monitoring report for the landfill site in order to properly assess the extent of the contamination on the off-property surface and ground waters. Monitoring data should be interpreted and forwarded to the MOE for review.

4. The Nation Municipality must provide all groundwater/surface water monitoring reports produced since 1999 to the MOE for review.

6.0 OTHER INSPECTION FINDINGS

The boundaries of the waste disposal site and of the waste placement area should be clearly marked to ensure that waste is placed within the footprint and not beyond the legal boundaries of the landfill site and that adequate buffer areas are maintained.

7.0 **INCIDENT REPORT**

O Applicable Not Applicable

8.0 **ATTACHMENTS**

Required attachments:

Appendix "A" - Photos of the South Plantagenet (Fournier) Waste Disposal Site Appendix "B" - Certificate of Approval for the South Plantagenet (Fournier) Waste Disposal Site

PREPARED BY:

Environmental Officer:

Name:

Marc F. Robert

District Office:

Cornwall Area Office

Date:

Signature

2003/03/05

REVIEWED BY:

District Supervisor:

Name:

Michael Seguin

District Office:

Cornwall Area Office

Date:

2003/03/05

Signature:

File Storage Number:

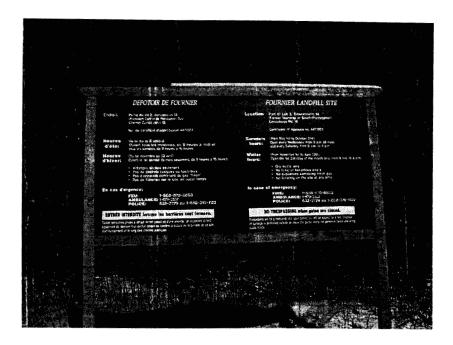
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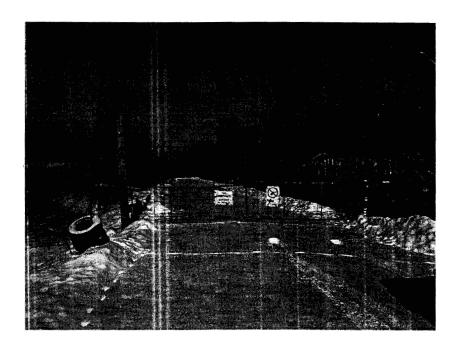
"This inspection report does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they may apply to this facility. It is, and remains, the responsibility of the owner and/or the operating authority to ensure compliance with all applicable legislative and regulatory requirements"

APPENDIX "A"

The Nation Municipality - South Plantagenet (Fournier) Waste Disposal Site Photos of Landfill Site



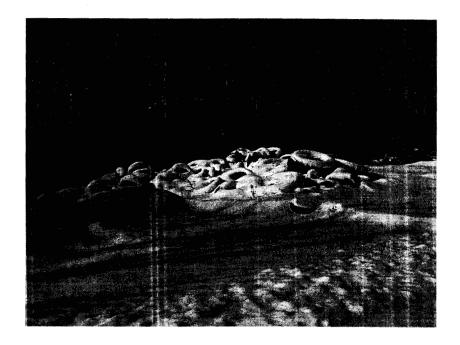
1. South Plantagenet (Fournier) waste disposal site entrance sign.



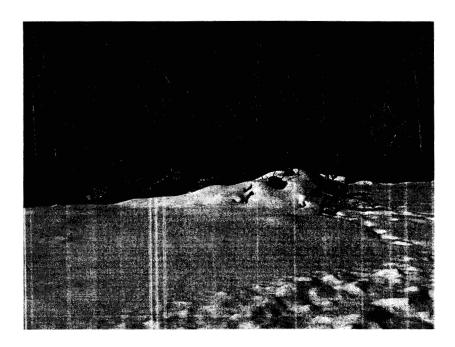
2. South Plantagenet (Fournier) waste disposal site entrance road and gate.



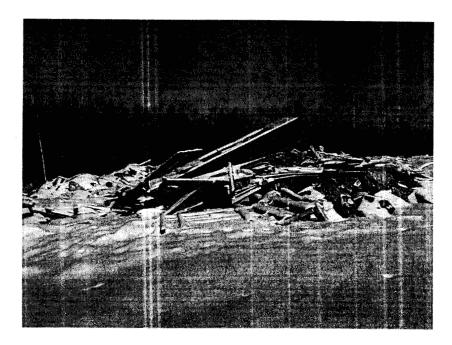
3. South Plantagenet (Fournier) waste disposal site active waste disposal area (direction: north).



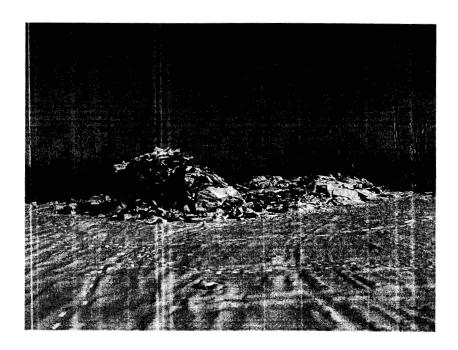
4. South Plantagenet (Fournier) waste disposal site waste tires pile.



5. South Plantagenet (Fournier) waste disposal site scrap metal pile.



6. South Plantagenet (Fournier) waste disposal site wood waste pile.



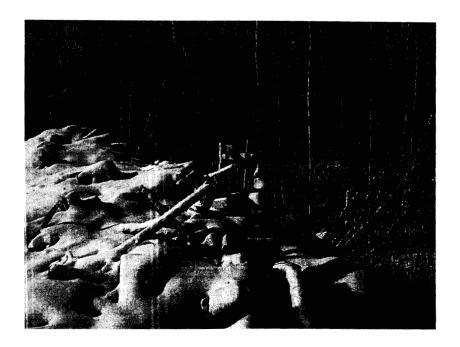
7. South Plantagenet (Fournier) waste disposal site uncovered waste.



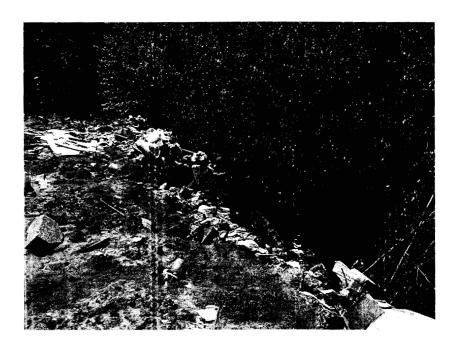
8. South Plantagenet (Fournier) waste disposal site (2003) uncovered waste along active face of waste disposal area (direction: east).



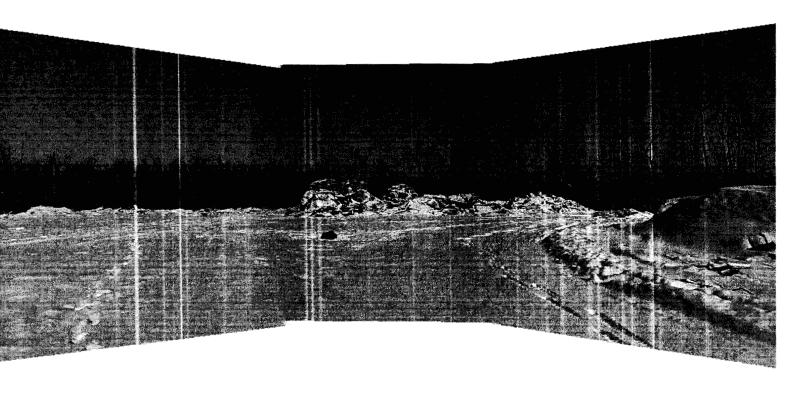
9. South Plantagenet (Fournier) waste disposal site (2001) uncovered waste along active face of waste disposal area (direction: east).



10. South Plantagenet (Fournier) waste disposal site (2003) uncovered waste along active face of waste disposal area (direction: west).



11. South Plantagenet (Fournier) waste disposal site (2001) uncovered waste along active face of waste disposal area (direction: west).



antagenet (Fournier) waste disposal site active waste disposal area (direction: north).

APPENDIX "B"

The Nation Municipality - South Plantagenet (Fournier) Waste Disposal Site Certificate of Approval No. A471801



PROVISIONAL CERTIFICATE OF APPROVAL 3 1090 WASTE DISPOSAL SITE

Under The Environmental Protection Act, 1971 and the regulations and subject to the limitations thereof, this Provisional Certificate of Approval is issued to:

Township of South Plantagenet Fournier, Ontario KOB 1GO

for the use and operation of a 30.4 hectare landfilling site

all in accordance with the following plans and specifications:

Located: N.W.1/4 Lot 3, Concession 14
Township of South Plantagenet
Counties of Prescott and Russell

which includes the use of the site only for the receiving and disposal of the following categories of waste (NOTE: Use of the site for additional categories of wastes requires a new application and amendments to the Provisional Certificate of Approval) denestic and commercial wastes.

and subject to the following conditions:

1. No operation shall be carried out at the site after sixty days from this condition becoming enforceable unless this Certificate including the reasons for this condition has been registered by the applicant as an instrument in the appropriate Land Registry Office against title to the site and a duplicate registered copy thereof has been returned by the applicant to the Director.

Dated this 16th day of April , 1980

Director, Section 39,

The Environmental Protection Act, 197

TO: Township of South Plantagenet Fournier, Ontario KOB 1G0

You are hereby notified that Provisional Certificate Approval No. A 471801 has been issued to you subject to t conditions outlined therein.

The reasons for the 'imposition of these conditions a: as follows:

The reason for the condition requiring registration of the Certificate is that Section 46 of The Environmental Protection Act, 1971 prohibits any use being made of the lands after they cease to be used for waste disposal purposes in order to protect future occupants of the site and the environment from any hazards which might occur as a result of waste being disposed of on the site. This prohibition and potential hazard should be drawn to the attention of future owners and occupants by the Certificate being registered on title.

You may by written notice served upon me and the Environmental Appeal Board within 15 days after receipt of this Notice, require a hearing by the Board.

This Notice should be served upon:

The Secretary,
Environmental Appeal Board, AND
1 St. Clair Ave. West,
5th Floor,
Toronto, Ontario.
M4V 1K7

The Director, Section 39 Ministry of the Environment,

DATED

this 16th day of April

1980

Director,

Section 39

Winisten of LL -

1408 1044 6/75

MUNICIPALITÉ DE LA NATION / THE NATION MUNICIPALITY

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