Newfoundland Labrador

GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Environment and Conservation

CERTIFICATE OF APPROVAL

Pursuant to the Environmental Protection Act, SNL 2002 c E-14.2 Section 83

Issue Date: ***April 8, 2016*** Approval No. AA16-045637

Expiration: ***April 8, 2020*** File No. 738.032.1

Proponent: **Canada Fluorspar (NL) Inc.**
P.O. Box 337
St. Lawrence, NL, Canada
A0E 2V0

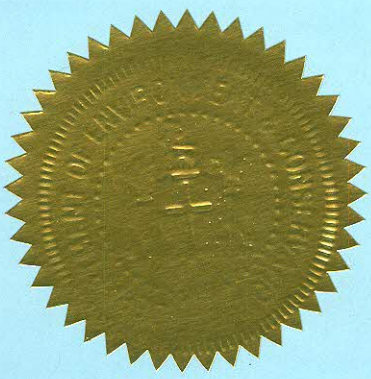
Attention: **Frank Pitman - Infrastructure/Construction Manager**

Re: **St. Lawrence Fluorspar Mine**

Approval is hereby given for: the construction for mine development activities for Grebes Nest Pit and supporting infrastructure, roads and pipelines, mill and AGS East tailings Management Facility.

This Certificate of Approval does not release the proponent from the obligation to obtain appropriate approvals from other concerned provincial, federal and municipal agencies. Nothing in this Certificate of Approval negates any regulatory requirement placed on the proponent. Where there is a conflict between conditions in this Certificate of Approval and a regulation, the condition in the regulation shall take precedence. Approval from the Department of Environment and Conservation shall be obtained prior to any significant change in the design, construction, installation, or operation of the St. Lawrence Fluorspar Mine, including any future expansion of the St. Lawrence Fluorspar Mine. This Certificate of Approval shall not be sold, assigned, transferred, leased, mortgaged, sublet or otherwise alienated by the proponent without obtaining prior approval from the Minister.

This Certificate of Approval is subject to the terms and conditions as contained therein, as may be revised from time to time by the Department. Failure to comply with any of the terms and conditions may render this Certificate of Approval null and void, may require the proponent to cease all activities associated with this Certificate of Approval, may place the proponent and its agent(s) in violation of the *Environmental Protection Act*, and will make the proponent responsible for taking such remedial measures as may be prescribed by the Department. The Department reserves the right to add, delete or modify conditions to correct errors in the Certificate of Approval or to address significant environmental or health concerns.



Dexter Pottle

FOR **MINISTER**

TERMS AND CONDITIONS FOR APPROVAL No. AA16-045637
April 8, 2016

General

1. This Certificate of Approval is for: the construction for mine development activities for Grebes Nest Pit and supporting infrastructure; roads and pipelines; mill; and AGS East Tailings Management Facility at St. Lawrence as per March 18, 2016 plans and specifications supplied by Knight Piesold Ltd. on behalf of Canada Fluorspar Inc. (CFI) for this Certificate of Approval. Operational activities will require a separate Certificate of Approval.

2. CFI shall develop the project as per the CFI Mine Development Plan.

3. Any inquiries concerning this approval shall be directed to the St. John's office of the Pollution Prevention Division (telephone: (709) 729-2556; or facsimile: (709) 729-6969).

4. In this Certificate of Approval:

- **accredited** means the formal recognition of the competence of a laboratory to carry out specific functions;
- **acid mine drainage** means any flow or drainage of water having a pH of less than 5.5 from areas affected by mining activities;
- **CFI** means Canada Fluorspar (NL) Inc.;
- **Department** means the Department of Environment and Conservation and its successors;
- **Director** means the Director of the Pollution Prevention Division of the Department;
- **discharge criteria** means the maximum allowable levels for the parameters listed in Table 3;
- **grab sample** means a quantity of undiluted sample collected at any given time. In this approval it refers to waste oil and effluent;
- **hazardous waste** means a product, substance or organism that is intended for disposal or recycling, including storage prior to disposal or recycling, and that:
  (a) is listed in Schedule III of the *Export and Import of Hazardous Waste Regulations under the Canadian Environmental Protection Act, 1999*;
  (b) is included in any of Classes 2 to 6, and 8 and 9 of the *Transportation of Dangerous Goods Regulations* under the *Transportation of Dangerous Goods Act, 1992*; or
  (c) exhibits a hazard classification of a gas, a flammable liquid, an oxidizer, or a substance that is dangerously reactive, toxic, infectious, corrosive or environmentally hazardous;

- **licensed** means has a Certificate of Approval issued by the Minister to conduct an activity;
- **malfunction** means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, wastewater treatment equipment, process equipment, or a process to operate in a normal or usual manner. Failures caused in part by poor maintenance or careless operation are not malfunctions;
- **Minister** means the Minister of the Department;
- **NO_X** means oxides of nitrogen;
- **NO_2** means nitrogen dioxide;
- **Plan** means the specific plan as identified in the section of this Approval within which it is used. For example, in the *Waste Management Plan* section it refers to the Waste Management Plan;
- **$PM_{2.5}$** means particulate matter with a diameter of 2.5 μm or less;
- **QA/QC** means Quality Assurance/Quality Control;
- **register(ed)**, in the context of storage tanks, means that information regarding the storage tank system has been submitted to a Service NL office and a registration number has been assigned to the storage tank system.
- **regulated substance** means a substance subject to discharge limit(s) under the *Environmental Control Water and Sewage Regulations, 2003*;
- **spill or spillage** means a loss of gasoline or associated product in excess of 70 litres from a storage tank system, pipeline, tank vessel or vehicle, or an uncontrolled release of any volume of a regulated substance onto or into soil or a body of water;
- **storage tank system** means a tank and all vent, fill and withdrawal piping associated with it installed in a fixed location and includes a temporary arrangement;
- **TDS** means total dissolved solids;
- **TPH** means total petroleum hydrocarbons, as measured by the Atlantic PIRI method;
- **TPM** means total particulate matter with diameters less than 100µm;
- **TSS** means total suspended solids;
- **used lubricating oil** means lubricating oil that as a result of its use, storage or handling, is altered so that it is no longer suitable for its intended purpose but is suitable for refining or other permitted uses;
- **used oil** means a used lubricating oil or waste oil; and

- **waste oil** means an oil that as a result of contamination by any means or by its use, is altered so that it is no longer suitable for its intended purpose.

5. All necessary measures shall be taken to ensure compliance with all applicable acts, regulations, policies and guidelines, including the following, or their successors:

- *Environmental Protection Act*;
- *Water Resources Act*;
- *Air Pollution Control Regulations, 2004;*
- *Environmental Control Water and Sewage Regulations, 2003;*
- *Halocarbon Regulations;*
- *Storage and Handling of Gasoline and Associated Products Regulations, 2003;*
- *Used Oil Control Regulations;*
- *Heating Oil Storage Tank System Regulations, 2003;*
- *Storage of PCB Waste Regulations, 2003;*
- *Ambient Air Monitoring Guidance Document;*
- *Sampling of Water and Wastewater - Industrial Effluent Applications Guidance Document;*
- *Accredited Laboratory Policy;*
- *Precipitation Drainage of Dyke Areas Guidance Document;* and
- *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Above Ground Storage Tanks.*

This Approval provides terms and conditions to satisfy various requirements of the above listed acts, regulations, Departmental policies and guidelines. If it appears that all of the pertinent requirements of these acts, regulations, policies and guidelines are not being met, then a further review of the works shall be conducted, and suitable pollution control measures may be required by the Minister.

6. All reasonable efforts shall be taken to minimize the impact of the operation on the environment. Such efforts include minimizing the area disturbed by the operation, minimizing air or water pollution, finding alternative uses, acceptable to the Director, for waste or rejected materials, removing equipment or structures when they no longer have further use, and considering the requirement for the eventual rehabilitation of disturbed areas when planning the development of any area on the facility property.

7. CFI shall provide to the Department, within a reasonable time, any information, records, reports or access to data requested or specified by the Department.

8. CFI shall keep all records or other documents required by this Approval at the St. Lawrence fluorspar mine for a period of not less than three (3) years, beginning the day they were made. These records shall be made available for review by officials of the Department or Service NL when requested.

9. Should CFI wish to deviate in any way from the terms and conditions of this Certificate of Approval, a written request detailing the proposed deviation shall be made to the Minister. CFI shall comply with the most current terms and conditions until the Minister has authorized otherwise. In the case of meeting a deadline requirement, the request shall be made at least 60 days ahead of the applicable date as specified in this Approval or elsewhere by the Department.

Environmental Protection Plan

10. All construction activities shall be subjected to the requirements of the Environmental Protection Plan (***January 2016 or as revised***) for all phases of the construction activities. All proposed revisions to the plan shall be submitted to the Director for review.

Construction

11. Any work that must be performed in a body of water below the high water mark shall be carried out during a period of low water levels, unless otherwise permitted in writing by the Department.

12. All construction operations shall be carried out in a manner that minimizes damage to land, vegetation, and watercourses, and which prevents pollution of bodies of water in excess of applicable regulatory limits.

13. The use of heavy equipment shall be confined to dry stable areas and shall not be carried out in streams or bodies of water, unless otherwise permitted in writing by the Department.

14. All vehicles and equipment shall be in good repair, and shall be free of leaks of oil or other harmful substances that could impair water quality.

15. During the construction of concrete components, formwork shall be properly constructed to prevent any fresh concrete from entering a body of water. Dumping of concrete or washing of tools and equipment in any body of water is prohibited.

16. Waste hardened concrete shall not be disposed as unsuitable material at the project site. Waste hardened concrete shall be put to beneficial use on site as fill material, or it shall be sent to an approved waste disposal site.

17. All areas affected by this project shall be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if necessary in the opinion of this Department.

18. Prior written permission is required from the Department for all work that takes place in a body of water, including but not limited to bridges, culverts, fording, stream modifications, infilling and dredging.

Concrete Batch Plant Operation

19. Should CFI, or a contractor on their behalf, wish to operate a concrete batch plant on the St. Lawrence fluorspar mine, then the clauses in this section shall be followed.

20. The batch plants and associated equipment shall be equipped with dust and emission control filters that are acceptable to the Department.

21. The batch plants shall not be operated without the dust control equipment on the silos being fully functional (i.e. no visible dust emissions from the baghouse).

22. Granular materials shall be transported in covered trailers or trucks to reduce airborne particulate.

23. Material stockpiles shall be sheltered from the wind and covered or otherwise maintained to prevent generation of air-borne particulate. The location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors such that environmental impacts are minimized.

24. Mixing of concrete shall take place at least 100 metres from a waterbody.

25. Dumping of concrete or washing of tools and equipment in any body of water is strictly prohibited. Hand tools and concrete truck chutes may be cleaned at the delivery location. Cleaning of hand tools or concrete truck chutes shall not be conducted within the buffer zone of water bodies or other sensitive areas.

26. Wash water from the cleaning of mixers, mixer trucks, and concrete delivery systems shall be directed to a closed system rinsing/settling basin.

27. In the event that water from the closed rinsing/settling system is to be released, it shall be tested prior to release for total suspended solids, pH, and for parameters related to any concrete additives to be used in the production of concrete. The water to be released shall meet the discharge criteria limits for all other parameters specified in Schedule 'A' of the *Environmental Control Water and Sewage Regulations*.

28. If water to be released does not meet discharge criteria, it shall be further treated until the discharge criteria have been met.

29. The settling basins for the batch plants shall be cleaned on an as required basis to ensure the retention and settling capacity is maintained at all times.

30. Solids recovered from the settling basins may be put to beneficial use at the site. In the event that solids recovered from the settling basins cannot be beneficially used, they shall be disposed of at an approved disposal site by a licenced contractor.

31. Concrete additives and form release agents shall be stored in approved containers and transferred and used in a manner that avoids loss of material to the environment.

32. Liquid concrete wastes shall be stored in a designated area with containment and allowed to harden prior to any disposal.

Waste Management

33. All waste generated at the facility is subject to compliance with the ***Environmental Protection Act***. All non-industrial waste shall be placed in closed containers and, on at least a weekly basis, removed from the site. If required, industrial waste shall be disposed of by a licensed operator. These wastes shall be disposed of at an authorized waste disposal site with the permission of the owner/operator of the site.

34. CFI shall ensure that all volatile chemical and solvent wastes, if they cannot be reused, are placed in suitable covered containers for disposal in a manner acceptable to the Department. Disposal of liquid wastes at waste disposal sites in the province is not permitted.

35. Disposal of hazardous waste in a municipal or regional waste disposal site in this Province is prohibited. Transporters of hazardous waste shall have an approval issued by the Minister. Those generating hazardous waste shall have a waste generators number issued by the Director and shall also complete the required information outlined in the Waste Manifest Form.

Waste Management Plan

36. CFI shall continue to implement the Waste Management Plan (***March 2016***) for their St. Lawrence fluorspar mine. Every year the Plan shall be reviewed and revised as necessary, accounting for expanding or alteration of activities. All proposed revisions shall be submitted to the Director for review. The Department will acknowledge receipt of the Plan and/or revisions, and shall provide any review comments within a reasonable time frame.

Acid Generating Waste Rock

37. Only non-acid generating waste rock shall be reused on the surface. If waste rock is identified as potentially acid generating or metal leaching, an appropriate waste rock management program shall be developed to handle, store, and appropriately dispose of the material.

38. This identification shall be in accordance with MEND Report 1.20.1, ***Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials***.

Open Burning

39. Materials listed in Table 1 shall not be burned in open fires.

Table 1 - Material Not Approved for Open Burning	
tires	manure
plastics	rubber
treated lumber	tar paper
asphalt and asphalt products	railway ties
drywall	paint and paint products
demolition waste	fuel and lubricant containers
hazardous waste	used oil
biomedical waste	animal cadavers
domestic waste	hazardous substances

trash, garbage, or other waste from commercial, industrial or municipal operations	materials disposed of as part of the removal or decontamination of equipment, buildings or other structures

40. Materials not listed in Table 1 may be burned on site only with the approval of the Department.

Noise

41. Efforts shall be made to minimize and control noise resulting from the St. Lawrence fluorspar mine's construction activities. All vehicles hauling materials within the facility shall have exhaust and muffling devices in good working order.

Dust Suppression

42. CFI shall control dusting resulting from construction and operational activities at the site. Use of dust suppressants other than water or calcium chloride shall require approval of the Director. CFI are encouraged to use best management practices when applying calcium chloride or any other approved dust suppressant.

Spill Prevention and Containment

43. Areas in which chemicals are used or stored shall have impermeable floors and dykes or curbs and shall not have a floor drain system, nor shall it discharge to the environment. Areas inside the dykes or curbs shall have an effective secondary containment capacity of at least ***110%*** of the chemical storage tank capacity, in the case of a single storage container. If there is more than one storage container, the dyked area shall be able to retain no less than ***110% of the capacity of the largest container or 100 %*** **of the capacity of the largest container plus 10% of the aggregate capacity of all additional containers, whichever is greater**. These dyked areas shall be kept clear of material that may compromise the capacity of the dyke system. Once a year, the dykes shall be visually inspected for their liquid containing integrity, and repairs shall be made when required. Once every ten years, the dykes shall be inspected, by a means other than visual inspection, for their liquid containing integrity, and repairs shall be made when required.

44. All on site storage of petroleum shall comply with the ***Storage and Handling of Gasoline and Associated Products Regulations, 2003***, or its successor. Storage tank systems shall be registered with Service NL. All aboveground storage tanks shall be clearly and visibly labelled with their GAP registration numbers.

45. Where applicable, all tanks and fuel delivery systems shall be inspected to appropriate American Petroleum Institute or Underwriters' Laboratories of Canada standards, or any other standards acceptable to this Department. The required frequency of inspections may be changed at the discretion of the Director.

46. Refuelling and maintenance of vehicles and equipment shall, whenever possible, be undertaken on a prepared impermeable surface with an oil containment or collection system. When this is not possible, due care shall be taken to prevent spillage on the ground and to the surrounding environment, particularly streams and other water bodies. The Contingency Plan for fuel storage shall detail the specific response actions in the event of a spill from refuelling or maintenance activities.

Contingency Plan

47. CFI shall continue to implement the Contingency Plan (***March 2016***) for their St. Lawrence fluorspar mine. This Plan describes the actions to be taken in the event of a spill of a toxic or hazardous material. Copies of the Plan shall be placed in convenient areas throughout the facility so that employees can easily refer to it when needed. CFI shall ensure that all employees are aware of the Plan and understand the procedures and the reporting protocol to be followed in the event of an emergency. An annual response exercise is recommended for response personnel. Every year, as a minimum, the Plan shall be reviewed and revised as necessary. Any proposed significant revisions shall be submitted to the Director for review. Changes which are not considered significant include minor variations in equipment or personnel characteristics which do not affect implementation of the Plan.

48. Every time CFI implements the Contingency Plan, information shall be recorded for future reference. This will assist in reviewing and updating the Plan. The record is to consist of all incidents with environmental implications, and include such details as: date; time of day; type of incident (i.e. liquid spill, gas leak, granular chemical spill, equipment malfunction, etc.); actions taken; problems encountered; and other relevant information that would aid in later review of the Plan performance. Each incident report shall be submitted to the Director as per the ***Reporting*** section.

Rehabilitation and Closure Plan

49. CFI shall satisfy all the rehabilitation and closure planning and financial assurance requirements of the Mining Act for the St. Lawrence fluorspar mine.

50. The Rehabilitation and Closure Plan ***(February 2016 or as amended)*** shall be reviewed annually by CFI and revised as necessary. All proposed revisions to the Plan shall be submitted to the Director.

Used Oil

51. Used oil shall be retained in an approved tank or closed container, and disposed of by a company licensed for handling and disposal of used oil products.

Effluent Monitoring and Discharge

52. CFI shall perform an Effluent Monitoring Program as per **Table 2**. Analytical results shall be submitted as per the ***Reporting*** section.

Table 2 - Effluent Monitoring Program

Reference	Location	Parameters	Frequency
WQ STA 22	Mine Site Sediment Pond Discharge	EDC (except for TPH and Ra226)	Weekly (at least 24 hours apart)
		TPH and Ra226	Monthly (at least 15 days apart)
WQ STA 23	Polishing Pond Discharge (Construction Phase Location)	EDC (except for TPH and Ra226)	Weekly (at least 24 hours apart)
		TPH and Ra226	Monthly (at least 15 days apart)

WQ STA 24	Mill Site Event Pond Discharge	EDC (except for TPH and Ra226)	Weekly (at least 24 hours apart)
		TPH and Ra226	Monthly (at least 15 days apart)

53. Refer to Table 3 for the Effluent Discharge Criteria (EDC).

Table 3: Effluent Discharge Criteria (EDC)

Parameter	**Maximum Allowable or Range** (all units are mg/L unless otherwise noted)
Total Dissolved Solids (TDS)	1000
Total Suspended Solids (TSS)	30
Total Petroleum Hydrocarbon (TPH)	15
Arsenic	0.5
Barium	5.0
Boron	5.0
Cadmium	0.05
Chromium	1.0
Copper	0.3
Iron	10
Lead	0.2
Nickel	0.5
Nitrates	10
Ammonia	2.0
Selenium	0.01
Silver	0.05
Zinc	0.5
pH	5.5 – 9.0 pH units
Radium 226	0.37 Bq/L

54. CFI may reduce the frequency of testing for a parameter that is set out in the EDC with the exception of pH, TSS, and Radium 226 to not less than once in each calendar quarter if that parameter's monthly mean concentration in the effluent is less than 10 percent of the maximum authorized monthly mean concentration for the 12 months immediately preceding the most recent test. CFI shall notify the Director in writing, at least 30 days in advance of a reduction in the frequency of testing.

55. CFI may reduce the frequency of testing for Radium 226 to not less than once in each calendar quarter if that substance's concentration in the effluent is less than

0.037Bq/L in 10 consecutive tests. CFI shall notify the Director in writing, at least 30 days in advance of a reduction in the frequency of testing.

56. CFI shall increase the frequency of testing to the originally prescribed frequency for a parameter that is set out in the EDC with the exception of pH and TSS if the parameter's monthly mean concentration is equal to or greater than 10 percent of the maximum authorized monthly mean concentration.

Water Chemistry Analysis

57. Four times per calendar year and not less than thirty (30) days apart, CFI shall perform Water Quality Analysis as per **Table 4**. Refer to **Table 4** for the locations and required parameters. Analytical results shall be submitted as per the ***Reporting*** section.

Table 4 - Water Chemistry Analysis Program

Reference	Location	Parameters
WQ STA 1	Upper Island Pond	**General Parameters:** temperature, dissolved oxygen (DO), nitrate + nitrite, nitrate, nitrite, pH, TSS, colour, sodium, potassium, calcium, sulphide, magnesium, ammonia, alkalinity, sulphate, chloride, turbidity, reactive silica, orthophosphate, phosphorous, DOC, conductance, TDS (calculated), phenols, carbonate ($CaCO_3$), hardness ($CaCO_3$), bicarbonate ($CaCO_3$) **Metals Scan:** aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, mercury, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, zinc
WQ STA 2	Outlet of Grebes Nest Pond	
WQ STA 3	Outlet of John Fitzpatrick Pond	
WQ STA 6	Downstream of John Fitzpatrick Pond	
WQ STA 7	Downstream of Upper Island Pond	
WQ STA 9	Downstream of Unnamed Pond	
WS-10	Salt Cove Brook – Farfield	
WQ STA 11	Downstream of proposed South Dump and Central North Pit	
WQ STA 13	Unnamed Stream Downstream of Open Cut Pit	
WQ STA 14	Unnamed Stream Downstream of the Overburden Dump	
WQ STA 15	Unnamed Pond Located Downstream and Northeast of the Tailings Impoundment	
WQ STA 16	Long Pond	
WQ STA 17	Unnamed Pond Located Downstream and Southeast of the Tailings Impoundment	
WQ STA 18	Unnamed Stream Draining the Unnamed Pond located Southeast of the Tailings Impoundment	
WQ STA 19	Unnamed Stream Located Downstream of the Polishing Pond	
WQ STA 20	Unnamed Stream located Downstream of the Mill Site	
WQ STA 21	Unnamed Stream located at Proposed Access Road Downstream of the TMF	
WQ STA 22	Mine Site Sediment Pond Discharge	
WQ STA 23	Polishing Pond Discharge (Construction Phase Location)	
WQ STA 24	Mill Site Event Pond Discharge	

Ambient Air

58. CFI shall operate an ambient air monitoring program as per the conditions in this Approval and its amendments for the St. Lawrence fluorspar mine's operation. Approval shall be obtained from the Director prior to purchase or installation of any monitoring equipment.

59. Parameters to be monitored are outlined in Table 5. A proposal outlining the locations for monitoring sites shall be submitted to the Director by ***May 31, 2016*** for approval. All necessary equipment upgrades and installations shall be in place and operational to the satisfaction of the Director by ***September 25, 2016***.

Table 5 - Ambient Air Monitoring Program	
Number of Monitors	**Parameter**
1	$PM_{2.5}$, TPM, NO_x

60. Ambient air monitoring shall be done in accordance with the ***Ambient Air Monitoring Guidance Document (GD-PPD-065)***, or its successors.

61. Information regarding calibrations, site visits and maintenance for all continuous ambient air monitors shall be recorded into the DR DAS electronic logbook.

Analysis and QA/QC

62. Unless otherwise stated herein, all solids and liquids analysis performed pursuant to this Approval shall be done by either a contracted commercial laboratory or an in-house laboratory. Contracted commercial laboratories shall have a recognized form of accreditation. In-house laboratories have the option of either obtaining accreditation or submitting to an annual inspection by a representative of the Department, for which CFI shall be billed for each laboratory inspection in accordance with Schedule 1 of the ***Accredited Laboratory Policy (PD:PP2001-01.02)***. Recommendations of the Director stemming from the annual inspections shall be addressed within 6 months, otherwise further analytical results shall not be accepted by the Director.

63. The exact location of each sampling point shall remain consistent over the life of the monitoring programs, unless otherwise approved by the Director. Using a GPS or similar device, the northing and easting of each sampling location shall be recorded and submitted by ***September 25, 2016*** to the Director.

64. CFI shall bear all expenses incurred in carrying out the environmental monitoring and analysis required under conditions of this Approval.

Monitoring Alteration

65. The Director has the authority to alter monitoring programs or require additional testing at any time when:

- pollutants might be released to the surrounding environment without being detected;

- an adverse environmental effect may occur; or
- it is no longer necessary to maintain the current frequency of sampling and/or the monitoring of parameters.

66. CFI may, at any time, request that monitoring program or requirements of this Approval be altered by:

- requesting the change in writing to the Director; and
- providing sufficient justification, as determined by the Director.

The requirements of this Approval shall remain in effect until altered, in writing, by the Director.

Reporting

67. Monthly reports containing the environmental compliance monitoring and sampling information required in this Approval shall be received by the Director, in digital format (e-mail or CD), within 30 calendar days of the reporting month. All related laboratory reports shall be submitted with the monthly report, in spreadsheet format (Microsoft Excel or a format easily transferable to Excel), and either Adobe Portable Document Format (PDF) or hardcopy format. Digital report submissions, if e-mailed, shall be sent to the following address: <<statenv@gov.nl.ca>>

68. All incidents of:

- *Contingency Plan* implementation; or
- non-conformance of any condition within this approval; or
- spillage or leakage of a regulated substance; or
- whenever discharge criteria is, or is suspected to be, exceeded; or
- verbal/written complaints of an environmental nature from the public received by CFI related to the St. Lawrence Fluorspar Mine, whether or not they are received anonymously;

shall be immediately reported, within one working day, to this Department by phoning (709) 729-2556.

A written report including a detailed description of the incident, summary of contributing factors, and an Action Plan to prevent future incidents of a similar nature, shall be submitted to the Director. The Action Plan shall include a description of actions already taken and future actions to be implemented, and shall be submitted within thirty days of the date of the initial incident. The address for written report submission is:

Director, Pollution Prevention Division
Department of Environment and Conservation
P.O. Box 8700
St, John's, NL

69. Any spillage or leakage of gasoline or associated product shall be reported immediately through the Canadian Coast Guard at 1-(709)-772-2083.

Expiration

70. This Certificate of Approval expires ***April 8, 2020.***

71. Should the proponent wish to continue to construct the St. Lawrence fluorspar mine beyond this expiry date, a written request shall be submitted to the Director for the renewal of this approval. Such request shall be made prior to ***October 8, 2019.***

APPENDIX A

Rehabilitation and Closure Plan Guidelines

This appendix is intended to provide guidance for the development of a Rehabilitation and Closure Plan Guidelines and to identify areas that are of particular concern or interest. The points presented are not set and are open to interpretation and discussion.

The Plan is intended to present the scope of activities that CFI shall undertake at the time of final closure and/or abandonment of the St. Lawrence fluorspar mine properties. Where it is useful and practical to do so the company is encouraged to begin undertaking some of the activities outlined in the Plan prior to final closure and abandonment. The objectives of the restoration work to be undertaken can be summarized as follows:

- to ensure that abandoned mine facilities do not endanger public health or safety;
- to prevent progressive degradation and to enhance the natural recovery of areas affected by mining activities;
- to ensure that mine facilities, wastes and tailings are abandoned so that the requirement for long term maintenance and monitoring is minimized;
- to mitigate, and if possible prevent, the continued loadings of contaminants and wastes to the environment. The primary objective shall be to prevent the release of contaminants into the environment. Where prevention is not practical due to technical or economic limitations then activities intended to mitigate the consequence of such a release of contaminants shall become the objective of restoration work;
- to mitigate, and if possible prevent, the formation of acid mine drainage. The primary objective shall be to prevent the formation of acid mine drainage. Where prevention is not practical due to technical or economic limitations, then activities intended to mitigate the consequences of the formation of acid mine drainage shall become the objective of restoration work; and
- to return affected areas to a state compatible with the original undisturbed condition, giving due consideration to practical factors including economics, aesthetics, future productivity and future users.

In particular the following areas should be addressed in the Plan:

Mill and Service Buildings

- The mill processing equipment shall be washed and cleaned of all ore residues. This activity shall remove all concentrate and chemical bearing residues from the milling circuit with the washed residues being treated through the effluent treatment plant and ultimately discharged into the tailings impoundment area.
- The equipment and internal fittings contained in both the mill and service buildings shall be dismantled, removed and sold for their salvage value. Items with no salvage value shall be disposed of according to section 30 of the Environmental Protection Act.
- All buildings are to be dismantled and removed from the site. All concrete walls, footings, foundations or floor slabs of the mill and service buildings should be

demolished to ground level. All openings or indentations below ground level are to be backfilled to ground level. Fill material shall be non-contaminated soil or concrete from demolition. All other outbuildings and pipe racks in the immediate vicinity of the mill and service buildings, and elsewhere on the property should be removed using the same philosophy.

- All buried pipelines and electrical cables may be left in place in the ground. Where these pipes or cables come to surface they should be cut off below ground level and buried with local fill. If oil filled power cables are to be left in place in the ground they shall be purged. Pipelines are to be purged of all residual materials and capped before backfilling. CFI shall provide the Department with drawings showing the location of all buried pipes and cables which are to remain after the mine's closure.

Fuel Storage Facilities

- All of the fuel storage facilities, including fuel handling equipment and pipelines, at the mine site shall be emptied and removed from the site according to the Storage and Handling of Gasoline and Associated Products Regulations, 2003.

Tailings

- The tailings impoundment areas should be left in a condition, acceptable to this Department, to prevent the generation of acid mine drainage and dust. Runoff from impoundment areas is to be directed to an outflow where drainage from the area can be monitored.

Till Borrow Areas/Quarries

- The till borrow areas/quarries used by CFI should be graded to ensure natural runoff patterns and then revegetated to mitigate future erosion. Till borrow areas/quarries shall be closed out in accordance with the permits already issued by this Department and the Department of Natural Resources.

cc: Ms. Maria Dober - Head
Compliance Promotion and Expert Support
Environment Canada – Atlantic Region
45 Alderney Drive
Dartmouth, NS
B2Y 2N6

Mr. Robert Locke
Manager of Operations and Environmental Protection
Service NL
5 Mews Place
P.O. Box 8700
St. John's, NL
A1B 4J6

Mr. Guy Perry - Regional Director
Service NL
2 Masonic Terrace
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Clarenville, NL
A0E 1J0

Mr. Alex Smith, P. Eng. – Director
Mineral Development Division
Department of Natural Resources
P.O. Box 8700
St. John's, NL
A1B 4J6

Town Manager
Town of St. Lawrence
P.O. Box 128
St. Lawrence NL
A0E 2V0

Newfoundland Labrador

Government of Newfoundland and Labrador
Department of Environment & Climate Change

Pollution Prevention Division
(Environment)

September 23, 2016

File No. 738.032.1

Frank Pitman
Infrastructure/Construction Manager
Canada Fluorspar (NL) Inc.
P.O. Box 337
Clarke's Pond Road
St. Lawrence, NL A0E 2V0

Dear Mr. Pitman,

RE: Amendment to Ambient Air Section of Certificate of Approval AA16-045637

The Department has reviewed your request of September 7, 2016, for an extension to the deadline for Canada Fluorspar (NL) Inc. to have ambient air monitoring equipment installed and operational to the satisfaction of the Director, as specified in Condition #59 of Certificate of Approval AA16-045637.

Approval is hereby granted to extend this deadline to **December 31, 2016**. If you have any questions please contact Stephen Dyke or myself.

Regards,

Dexter Pittman
Manager, Industrial Compliance and Impacted Sites Management