

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Environment and Climate Change

CERTIFICATE OF APPROVAL

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

Issue Date: December 13, 2023

Approval No. AA23-125700

Expiration: December 13, 2028

File No. 731.047

Proponent:

CEMEX Materials Newfoundland, Inc.

800 N. Magnolia Avenue, Suite 300

Orlando, FL 32803

Attention:

George Dumont, VP Aggregate Operations

Re:

Lower Cove Operation

Approval is hereby given for the operation of quarries, processing and wash plant facilities, product stockpiles, load port facilities, settling ponds and other associated works, located at Lower Cove on the Port au Port Peninsula, to produce chemical grade limestone and dolomite and construction aggregates.

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 requirement in the regulation shall take precedence. Approval from the Department of Environment and Climate Change shall be obtained prior to any significant change in the design, construction, installation, or operation of the Lower Cove Operation, including any future expansion of the Lower Cove Operation. 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.

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TERMS AND CONDITIONS FOR APPROVAL No. AA23-125700

December 13, 2023

General

- 1. This Certificate of Approval is for the operation of quarries, processing and plant facilities, product stockpiles, load port facilities, settling ponds and other associated works, located at Lower Cove on the Port au Port Peninsula, for the production of chemical grade limestone and dolomite and construction aggregates. Extensive future expansion or change of activities will require a separate Certificate of Approval.
- 2. Certificate of Approval AA23-055698 is revoked and replaced by this Certificate of Approval.
- 3. Any inquiries concerning this Approval shall be directed to the Western Regional Office of the Pollution Prevention Division (telephone: (709) 643-6114; or facsimile: (709) 643-8654).
- 4. In this Certificate of Approval:
 - **accredited** means the formal recognition of the competence of a laboratory to carry out specific functions;
 - **associated product** means petroleum or a derivative of it, except gasoline, which is in a liquid state at ambient temperature and pressure;
 - **CEMEX** means CEMEX Materials Newfoundland, Inc.;
 - **Department** means the Department of Environment and Climate Change and its successors;
 - **DGSNL** means Digital Government and Service NL and its successors;
 - **DOC** means dissolved organic carbon;
 - **EDMS** means Environmental Data Management System;
 - GAP means Storage and Handling of Gasoline and Associated Products Regulations, 2003;
 - 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;
- **liquid waste** is defined by the *Slump Test* (Canadian Standards Association test method A23.2-5C). The liquid waste slump test involves placing the waste in a 30 cm open inverted cone. The cone is removed and the immediate decrease (slump) in height of the waste material is measured. If the material slumps such that the original height is reduced by 15 cm or more, the waste is considered liquid;
- 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;
- PM_{2.5} means particulate matter with a diameter of 2.5 µm or less;
- **proficiency testing** means the use of inter-laboratory comparisons to determine the performance of individual laboratories for specific tests or measurements;
- **Province** means Province of Newfoundland and Labrador;
- 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 DGSNL office and a registration number has been assigned to the storage tank system; and
 - environmental site assessment and impacted site management work, means approved by the Department in accordance with departmental policy and guidelines;
- **regulated substance** means a substance subject to discharge limit(s) under the *Environmental Control Water and Sewage Regulations*, 2003 but excluding gasoline or associated products, used oil or used glycol;
- **Site Professional** means an individual who is registered with the Department to oversee environmental site assessment, remediation and contaminated site management work in Newfoundland and Labrador;
- **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 oil** means oil that, through use, storage or handling, can no longer be used for its original purpose.
- 5. All necessary measures shall be taken to ensure compliance with all applicable acts, regulations, policies, guidance documents and guidelines, including the following, or their successors:
 - Environmental Protection Act;
 - Water Resources Act;
 - *Air Pollution Control Regulations, 2022;*
 - Environmental Control Water and Sewage Regulations, 2003;
 - *Halocarbon Regulations*;
 - Storage and Handling of Gasoline and Associated Products Regulations, 2003;
 - *Used Oil and Used Glycol Control Regulations;*
 - Heating Oil Storage Tank System Regulations, 2003;
 - Ambient Air Monitoring Guidance Document;
 - Sampling of Water and Wastewater Industrial Effluent Applications Guidance Document;
 - Accredited Laboratory Policy;
 - Effluent Schedule Determination Policy for Industries; and
 - Guidance Document for the Management of Impacted Sites.

This Approval provides terms and conditions to satisfy various requirements of the above listed acts, regulations, policies, guidance documents and guidelines. If it appears that any 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, water or soil pollution,
 - finding alternative uses, acceptable to the Department, 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. **CEMEX** shall provide to the Department, within a reasonable time, any information, records, reports or access to data requested or specified by the Department.
- 8. **CEMEX** shall keep all records or other documents required by this Approval at the Lower Cove location for a period of not less than three years, beginning the day they were made. These records shall be made available for review by officials of the Department or DGSNL when requested.

9. Should **CEMEX** 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 Department. **CEMEX** shall comply with the most current terms and conditions until the Department 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.

Activities Affecting Bodies of Water

- 10. 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.
- 11. All construction operations shall be carried out in a manner that minimizes damage to land, vegetation, and watercourses, and which prevents the discharge of substances, to bodies of water, in excess of applicable regulatory limits.
- 12. 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.
- 13. 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.
- 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.
- 15. 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.
- 16. 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.
- 17. **CEMEX** shall apply for and obtain a permit under Section 48 of the Water Resources Act, 2002, for any work in or within 15 metres of a body of water (including wetlands) prior to the start of the work.

Environmental Protection Plan

18. **CEMEX** shall implement the most recent version of the Lower Cove Operation Environmental Protection Plan (**March 2019**). Every year the Plan shall be reviewed and revised as necessary, accounting for expansion or alteration of activities. Any proposed significant revisions shall be submitted to the Department for review. Changes which are not considered significant include minor variations in equipment or personnel characteristics which do not affect the implementation of the Plan.

Waste Management

- 19. The management of waste generated at the facility is subject to compliance with the *Environmental Protection Act*. All non-industrial waste shall be stored in a manner acceptable to the Department and, on at least a weekly basis, be disposed of:
 - at an authorized waste disposal site, with the permission of the owner/operator of the site; or
 - by some other means acceptable to the Department.

If required, industrial waste shall be disposed of by a licensed operator.

- 20. **CEMEX** shall ensure that all volatile chemical and solvent wastes, if they can not 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.
- 21. 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 generator's number issued by the Department and shall also complete the required information outlined in the Waste Manifest Form.

Waste Management Plan

22. **CEMEX** shall continue to implement the Waste Management Plan (*October 2019*) for their Lower Cove Operation, including all revisions. Every year the Plan shall be reviewed and revised as necessary, accounting for expansion or alteration of activities. Any proposed significant revisions shall be submitted to the Department for review. Changes which are not considered significant include minor variations in equipment or personnel characteristics which do not affect the implementation of the Plan.

Burning Prohibition

- 23. Materials listed in Table 1 shall not be burned in a fire, unless the burning of the material is recommended, in writing, by the Office of the Fire Commissioner or the burning occurs in combustion process equipment that has been approved, in writing, by the Department for that purpose.
- 24. The Department shall be notified prior to the burning of any materials not listed in Table 1.

Table 1 - Materials Prohibited from Burning in a Fire		
(a) tires	(k) manure	
(b) plastics	(l) rubber	
(c) treated lumber	(m) tar paper	
(d) asphalt and asphalt products	(n) railway ties	
(e) drywall	(o) paint and paint products	
(f) demolition waste	(p) fuel and lubricant containers	
(g) hazardous waste	(q) used oil	
(h) biomedical waste	(r) animal cadavers	
(i) domestic waste	(s) hazardous substances	
(j) trash, garbage, or other waste from commercial, industrial or municipal operations	(t) materials disposed of as part of the removal or decontamination of equipment, buildings or other structures	

Noise

25. Efforts shall be made to minimize and control noise resulting from the Lower Cove operations and maintenance activities. All vehicles operating within the facility shall have exhaust and muffling devices in good working order.

Dust Suppression

26. **CEMEX** 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 Department. **CEMEX** are encouraged to use best management practices when applying calcium chloride or any other approved dust suppressant.

Spill and Leak Prevention and Containment

- 27. Areas in which chemicals are used or stored shall have spill and leak containment systems constructed with impermeable floors, walls, dykes or curbs as applicable and be configured, maintained, inspected and repaired as follows:
 - they shall not discharge to the environment;
 - they shall have an effective secondary containment capacity of at least 110 per cent of the chemical storage tank capacity, in the case of a single storage container;
 - if there is more than one storage container, they shall have an effective secondary containment capacity of at least 110 per cent of the capacity of the largest container, or 100 per cent of the capacity of the largest container plus 10 per cent of the aggregate capacity of all additional containers, whichever is greater;

- they shall be kept clear of material that may compromise the containment capacity;
- they may include a floor drain system provided that the floor drains, and the place or device to which they drain, are configured in such a manner that the required effective secondary containment capacity is maintained;
- every year they shall be visually inspected for their liquid containing integrity, and repairs shall be made when required; and
- once every 10 years, spill and leak containment systems shall be inspected, by a means other than visual inspection, for their liquid containing integrity, and repairs shall be made when required.
- 28. 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 DGSNL.
- 29. 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 Department.
- 30. **CEMEX** shall maintain an inventory of all petroleum and chemical storage tanks. This inventory shall include the following:
 - site plan showing tank location,
 - registration number (where applicable),
 - identification number,
 - material stored,
 - capacity,
 - annual throughput,
 - tank material,
 - tank type,
 - tank diameter,
 - tank height,
 - tank colour,
 - roof type,
 - year of manufacture,
 - date of installation,
 - date of last inspection,
 - failure history,
 - maintenance history,
 - effective secondary containment capacity, and
 - date of next planned inspection.

An update of the complete storage tank inventory including any changes to it shall be submitted to the Department within three months of the change having occurred.

31. Refuelling and maintenance of vehicles and equipment shall, whenever possible, be undertaken on a prepared impermeable surface with a containment or collection system for spills or leaks of fluids (e.g. hydrocarbons, coolants and other associated fluids). When this is not possible, due care shall be taken to prevent spills or leaks on the ground and to the surrounding environment, particularly streams and other water bodies. The Contingency Plan for the Lower Cove Operation shall detail the specific response actions in the event of a spill or leak from refuelling or maintenance activities.

Contingency Plan

- 32. **CEMEX** shall continue to implement the Contingency Plan (*March 2019*) for their Lower Cove Operation, including all revisions. This Plan describes the actions to be taken in the event of a spill or leak 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. **CEMEX** 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 the Plan shall be reviewed and revised as necessary, accounting for expansion or alteration of activities. Any proposed significant revisions shall be submitted to the Department for review. Changes which are not considered significant include minor variations in equipment or personnel characteristics which do not affect the implementation of the Plan.
- 33. Every time **CEMEX** 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 leak/spill, gas leak, granular chemical leak/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 Department as per the *Reporting* section.

Rehabilitation and Closure

- A Rehabilitation and Closure Plan detailing the actions to be taken to restore areas disturbed by the operation has been submitted to the Department (*December 2020*). The Plan shall be implemented progressively as required and completed upon site closure.
- 35. As part of the site decommissioning and restoration process, **CEMEX** shall employ a registered Site Professional to complete a site-wide environmental site assessment, as defined in the *Guidance Document for the Management of Impacted Sites*. Should impacts be identified, **CEMEX** shall proceed through the process outlined in the Guidance Document to achieve regulatory site closure.

Used Oil

- Where greater than 205 litres of used oil is stored in one or more containers, the storage shall require approval from the Department or DGSNL.
- 37. Used oil shall be disposed of by a company licensed for the handling and disposal of such products.

- 38. Information on used oil that is generated at the facility each year shall be submitted to the Department, as per the *Reporting* section, by *January 31* of the following year for review. This shall include a description of the:
 - type(s) of oil used;
 - approximate total volume of used oil generated; and
 - method of disposal for the used oil.
- 39. The use or operation of an oil separator requires registration under the *Used Oil and Used Glycol Control Regulations*. Applications for registration shall be submitted to, and registration numbers are assigned by, DGSNL.

Water/Effluent Quality Monitoring and Discharge

- 40. **CEMEX** shall perform a Water/Effluent Quality Monitoring Program as per Table 2. All results shall be submitted to the Director as per the *Reporting* section.
- 41. All water/effluent pumped from Dolomite Quarry #1 shall be discharged into Duck Pond via the designated discharge line/outlet.
- 42. All water/effluent pumped from Dolomite Quarry #2 shall be discharged into the approved natural settling pond area via the designated discharge line/outlet.
- 43. All water/effluent pumped from the High-Calcium Limestone Quarry shall be to the engineered settling pond and discharged via the down gradient trench to a bog area and tributary to Harry's Brook.
- 44. Water/effluent discharge is required to meet the applicable discharge criteria limits as established by the *Environmental Control Water and Sewage Regulations (2003)*.

Ambient Air

- 45. **CEMEX** shall operate an ambient air monitoring program as per the conditions in this Approval and its amendments. Approval shall be obtained from the Department prior to purchase, installation or relocation of any monitoring equipment.
- 46. Parameters to be monitored and the monitoring locations are outlined in Table 3.
- 47. Ambient air monitoring shall be done in accordance with the *Ambient Air Monitoring Guidance Document (GD-PPD-065)*, or its successors.
- 48. Information regarding calibrations, site visits and maintenance for all continuous ambient air monitors shall be recorded into the DR DAS electronic logbook.

Table 2 – Water/Effluent Quality Monitoring Program				
Location	EDMS Location Code	Parameters	Frequency	
Dolomite Quarry #1 discharge into Duck Pond	00265	General Parameters - must include the following: nitrate + nitrite, nitrate, nitrite, ammonia, pH, TSS, colour, sodium, potassium,	Grab Sample four (4) times per year (not less than one	
Hi Cal Sampling Point #1 – discharge from trench into bog area	00266	calcium, sulphide, magnesium, alkalinity, sulphate, chloride, turbidity, reactive silica, orthophosphate, phosphorous, DOC, conductance, TDS (calculated), phenolics, carbonate (CaCO3), hardness (CaCO3),	month apart)	
Dolomite Quarry #2 – discharge into the designated natural settling pond.	30201	bicarbonate (CaCO3), TPH Metals Scan - must include the following: 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		
Hi Cal Sampling	00698	pH, TSS General Parameters and Metals Scan	Monthly Grab Sample	
Point #2 Hi Cal Sampling Point #3	00699		four (4) times per year (not less than one month apart)	

Table 3 - Ambient Air Monitoring Program			
Location	EDMS Location Code	Parameter(s)	
Monitoring Station	00697	TPM, PM _{2.5}	

Analysis and QA/QC

49. 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 inhouse 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 **CEMEX** shall be billed for each laboratory inspection in accordance with Schedule 1 of the *Accredited Laboratory Policy (PD:PP2001-01.2)*. Recommendations of the Department stemming from an annual inspection shall be addressed within six months, otherwise further analytical results shall not be accepted by the Department.

- 50. If **CEMEX** wishes to perform in-house laboratory testing and submit to an annual inspection by the Department then a recognized form of proficiency testing recognition shall be obtained for compliance parameters for which this recognition exists. The compliance parameters are listed in the *Water/Effluent Quality Monitoring and Discharge* section. If using a commercial laboratory, **CEMEX** shall contact that commercial laboratory to determine and to implement the sampling and transportation QA/QC requirements for those activities.
- 51. The exact location of each sampling point shall remain consistent over the life of the monitoring programs, unless otherwise approved by the Department.
- 52. **CEMEX** shall bear all expenses incurred in carrying out the environmental monitoring and analysis required under conditions of this Approval.

Monitoring Alteration

- 53. The Department 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.
- 54. **CEMEX** may, at any time, request that monitoring programs or requirements of this Approval be altered by:
 - requesting the change in writing to the Department; and
 - providing sufficient justification, as determined by the Department.

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

Reporting

- Monthly reports containing the environmental compliance monitoring and sampling information required in this Approval shall be received by the Department in digital format within 30 calendar days of the reporting month. All related laboratory reports shall be submitted with the monthly report in Extensible Markup Language (XML) format and Adobe Portable Document Format (PDF). Digital report submissions shall be uploaded through the EDMS web portal.
- Each monthly report shall include a summary of all environmental monitoring components and shall include an explanation for the omission of any requisite data. The monthly summary reports shall be in Microsoft Word or Adobe PDF and shall be uploaded through the EDMS web portal with the data submissions.
- 57. Annual reports required in this Approval shall be in Microsoft Word or Adobe PDF and shall be uploaded through the EDMS web portal.

58. All incidents of:

- Contingency Plan implementation; or
- non-conformance of any condition within this Approval; or
- an uncontrolled release of any amount of a regulated substance to the environment; or
- effluent discharge criteria being, or suspected of being, exceeded; or
- verbal or written complaints of an environmental nature received from the public by **CEMEX** and related to the Lower Cove Operation, including complaints submitted anonymously;

shall be immediately reported, within one working day, to the Department.

A written comprehensive incident report, including a detailed description of the incident, a summary of contributing factors, and an Action Plan to prevent future incidents of a similar nature, shall be prepared. The report shall include a description of actions already taken and future actions to be implemented, and shall be submitted to the Department within 30 days of the date of the initial incident.

59. Any:

- spill of gasoline or associated product in excess of 70 litres from a storage tank system, pipeline, or vehicle onto or into soil or water, or
- leak of gasoline or associated product in any amount from a storage tank system, pipeline, tank car or tank vehicle, or
- spill of used oil or used glycol in excess of 70 litres from a storage tank system onto or into soil or water, or
- leak of used oil or used glycol in any amount from a storage tank system;

that is released to the environment shall be reported immediately through the Environmental Emergencies 24-hour report line at 1-800-563-9089.

Expiration

- 60. This Certificate of Approval expires *December 13, 2028*.
- 61. Should **CEMEX** wish to continue to operate the Lower Cove Operation beyond this expiry date, a written request shall be submitted to the Department for the renewal of this Approval. Such request shall be made prior to *June 13*, 2028.

cc: Ms. Julie Robbins
Environment and Climate Change Canada
4 Herald Ave., 5th Floor, Suite 503
Corner Brook, NL
A2H 4B4

Mr. Chris Parsons - Manager of Operations and Environmental Protection Digital Government and Service NL 149 Smallwood Drive Mount Pearl, NL A1B 4J6

Mr. Keith Bradbury – Director Mineral Development Division Department of Industry, Energy and Technology P.O. Box 8700 St. John's, NL A1B 4J6