



State of Mississippi

WATER POLLUTION CONTROL PERMIT



Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

THIS CERTIFIES

Linde Inc
118 Shirley Lane
Brandon, MS
Rankin County

Draft for Public Notice
Date: January 19, 2022

has been granted permission to discharge wastewater in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit. This permit is issued in accordance with the provisions of the Mississippi Water Pollution Control Law (Section 49-17-1 et seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder, and under authority granted pursuant to Section 402(b) of the Federal Water Pollution Control Act.

Mississippi Environmental Quality Permit Board

Mississippi Department of Environmental Quality

Issued/Modified:

Expires:

Permit No. MS0048089

Agency Interest # 9870

*** Draft Permit ***

Table of Contents

Subject Item Inventory.....i

Facility Requirements.....1

General Information.....A-1

Other Relevant Documents:

 Cover Letter, Form 1, Form 2C, Drawings, Analytical Reports, Data Sheets

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc

Subject Item Inventory

Permit Number:MS0048089

Activity ID No.: PER20210001

Subject Item Inventory:

ID	Designation	Description
AI9870		
RPNT2	MS0048089-001	Outfall 001 - (Stormwater, condensate from the incoming CO2 Gas Stream and non-contact cooling tower blowdown)

Receiving Stream Relationships:

Subject Item	Relationship	Receiving Stream
RPNT2 Outfall 001 - (Stormwater, condensate from the incoming CO2 Gas Stream and non-contact cooling tower blowdown)	Discharges Into	Unnamed Creek
	Then Into	Cane Creek

KEY

ACT = Activity

AREA = Area

CONT = Control Device

IA = Insignificant Activity

MAFO = Animal Feeding Operation

RPNT = Release Point

WDPT = Withdrawal Point

AI = Agency Interest

CAFO = Concentrated Animal Feeding Operation

EQPT = Equipment

IMPD = Impoundment

PCS = PCS

TRMT = Treatment

*** Draft Permit ***

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Subject Item: **Outfall 001 - (Stormwater, condensate from the incoming CO2 Gas Stream and non-contact cooling tower blowdown)**
RPNT0000000002: MS0048089-001

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Discharge Limitations							Monitoring Requirements		
	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months
<i>Chlorine, total residual Effluent</i>	*****	*****	*****	*****	0.011 Quarterly Average	0.019 Daily Maximum	mg/L	Monthly	Grab Sampling	Jan-Dec
<i>Chromium (Total Recoverable) Effluent</i>	*****	*****	*****	*****	0.042 Quarterly Average	0.323 Daily Maximum	mg/L	Monthly	Grab Sampling	Jan-Dec
<i>Copper (Total Recoverable) Effluent</i>	*****	*****	*****	*****	0.005 Quarterly Average	0.007 Daily Maximum	mg/L	Monthly	Grab Sampling	Jan-Dec
<i>Flow, in conduit or thru treatment plant Effluent</i>	Report Quarterly Average	Report Daily Maximum	Million Gallons per Day	*****	*****	*****	*****	Monthly	Instantaneous Sampling	Jan-Dec
<i>Iron (Total as FE) Effluent</i>	*****	*****	*****	*****	1.0 Quarterly Average	3.0 Daily Maximum	mg/L	Monthly	Grab Sampling	Jan-Dec
<i>Nickel (Total Recoverable) Effluent</i>	*****	*****	*****	*****	0.029 Quarterly Average	0.26 Daily Maximum	mg/L	Monthly	Grab Sampling	Jan-Dec
<i>pH Effluent</i>	*****	*****	*****	6.0 Minimum	*****	9.0 Maximum	SU	Monthly	Grab Sampling	Jan-Dec
<i>Phenol Effluent</i>	*****	*****	*****	*****	0.102 Quarterly Average	0.30 Daily Maximum	mg/L	Monthly	Grab Sampling	Jan-Dec

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Subject Item: Outfall 001 - (Stormwater, condensate from the incoming CO2 Gas Stream and non-contact cooling tower blowdown)
RPNT0000000002: MS0048089-001

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Discharge Limitations							Monitoring Requirements		
	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months
<i>Temperature (Deg. F) Effluent</i>	*****	*****	*****	*****	*****	90 Daily Maximum	degrees F	Monthly	Grab Sampling	Jan-Dec

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 1 of 20

AI0000009870:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		There shall be no discharge of floating solids or visible foam in other than trace amounts. [11 Miss. Admin. Code Pt. 6, R. 2.2.A(2).]
L-2		The discharges shall not cause the occurrence of a visible sheen on the surface of the receiving waters. [11 Miss. Admin. Code Pt. 6, R. 2.2.A(2).]
L-3		Samples taken in compliance with the monitoring requirements specified in this permit shall be taken at the nearest accessible point after final treatment but prior to mixing with the receiving stream or as otherwise specified in this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(28).]

Record-Keeping Requirements:

Condition No.	Condition
R-1	<p>Recording of Results</p> <p>For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall maintain records of all information obtained from such monitoring including:</p> <ol style="list-style-type: none">(1) The exact place, date, and time of sampling;(2) The dates the analyses were performed;(3) The person(s) who performed the analyses;(4) The analytical techniques, procedures or methods used; and(5) The results of all required analyses. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(a).]

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 2 of 20

AI0000009870 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-1	<p>Reporting</p> <p>Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report (DMR). DMR data must be submitted electronically using the MDEQ NetDMR system NO LATER THAT THE 28TH DAY OF THE MONTH FOLLOWING THE COMPLETED REPORTING PERIOD.</p> <p>DMRs and all other reports required herein, shall be signed in accordance with 11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c)(1). of the Mississippi Wastewater Regulations. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)c(1)., 40 CFR 122.21(1)(4)(i)]</p>
S-2	<p>Reporting Requirements - Planned Changes</p> <p>The permittee shall give notice to the Permit Board as soon as possible of any planned physical alterations or additions, including but not limited to, a change of operation to the permitted facility. Notice is required in the circumstances that follow:</p> <p>(1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether the facility is a new source in 40 CFR 122.29(b); or</p> <p>(2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to either effluent limitations in the permit or notification requirements under 40 CFR 122.42(a)(1).</p> <p>(3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan; [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(a).]</p>
S-3	<p>Reporting Requirements - Anticipated Noncompliance</p> <p>The permittee shall give advance notice to the Permit Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [11 Miss. Admin. Code Pt. 6, R. 1.1.4A(29)(b).]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 3 of 20

AI0000009870 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-4	<p>Noncompliance Notification - Twenty-Four Hour Reporting</p> <p>(1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and/or prevent recurrence of the noncompliance.</p> <p>(2) The following shall be included as information which must be reported within 24 hours under this paragraph.</p> <p>(i) Any unanticipated bypass which exceeds any effluent limitation in the permit.</p> <p>(ii) Any upset which exceeds any effluent limitation in the permit.</p> <p>(iii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Permit Board in the permit to be reported within 24 hours.</p> <p>(iv) The Executive Director may waive the written report on a case-by-case basis for reports under paragraph (1) of this section if the oral report has been received within 24 hours.</p> <p>The Executive Director may waive the written report on a case-by-case basis for reports under paragraph (1) of this section if the oral report has been received within 24 hours.</p> <p>All reports required by this condition which are submitted after December 20, 2025, shall be submitted by the permittee electronically as instructed by MDEQ. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(e)., 40 CFR 122.41.(1)(6)]</p>
S-5	<p>Noncompliance Notification - Other Noncompliance</p> <p>The permittee shall report all instances of noncompliance not reported under the twenty-four hour reporting requirements, at the time monitoring reports are submitted or within 30 days from the end of the month in which the noncompliance occurs. The reports shall contain the same information as is required under the twenty-four hour reporting requirements contained in this permit.</p> <p>All reports required by this condition which are submitted after December 20, 2025, shall be submitted by the permittee electronically as instructed by MDEQ. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(f)., 40 CFR 122.41.(1)(7)]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 4 of 20

AI0000009870 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-6	<p>Noncompliance Notification - Other Information</p> <p>Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permit Board, it shall promptly submit such facts or information. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(g).]</p>
S-7	<p>Bypassing -Notice</p> <p>Anticipated bypass- If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.</p> <p>Unanticipated bypass- The permittee shall submit notice of an unanticipated bypass as required by the twenty-four hour reporting requirements set forth in this permit.</p> <p>All reports required by this condition which are submitted after December 20, 2025, shall be submitted by the permittee electronically as instructed by MDEQ. [40 CFR 122.41(m)(3)(i, ii)]</p>
S-8	<p>Expiration of Permit</p> <p>At least 180 days prior to the expiration date of this permit pursuant to the State law and regulation, the permittee who wishes to continue to operate under this permit shall submit an application to the Permit Board for reissuance. The Permit Board may grant permission to submit an application later than this, but no later than the expiration date of the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.5.B(1).]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 5 of 20

AI0000009870 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-9	<p>Requirements Regarding Cooling and Boiler Water Additives</p> <p>Notification shall be made to the permitting authority in writing not later than sixty (60) days prior to initiating the addition of any chemical product to the cooling water and/or boiler water which is subject to discharge, other than those previously approved and/or used. Such notification should include, but not be limited to:</p> <ul style="list-style-type: none">(1) Name and composition of the proposed additive,(2) Proposed discharge concentration,(3) Dosage addition rates,(4) Frequency of use,(5) EPA registration, if applicable, and(6) Aquatic species toxicological data. <p>Written approval must be received from the permitting authority prior to initiating use. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(14).]</p>

Narrative Requirements:

Definitions:

Condition No.	Condition
T-1	<p>Definitions: General</p> <p>The permittee shall refer to 11 Miss. Admin. Code Pt. 6, R. 1.1.1.A for definitions of any permit term not specified in this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A.]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 6 of 20

AI0000009870 (continued):

Narrative Requirements:

Definitions:

Condition No.	Condition
T-2	<p>Definitions: Monthly Average</p> <p>"Monthly Average" means the average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during the month. The monthly average for E coli bacteria is the geometric mean of "daily discharges" measured during the calendar month. In computing the geometric mean for E coli bacteria, the value one (1) shall be substituted for sample results of zero. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(44).]</p>
T-3	<p>Definitions: Daily Discharge</p> <p>"Daily discharge" means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily average" is calculated as the average measurement of the discharge of the pollutant over the day. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(15).]</p>
T-4	<p>Definitions: Daily Maximum</p> <p>"Daily maximum" means the highest "daily discharge" over a calendar month. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(16).]</p>
T-5	<p>Definitions: Toxic Pollutants</p> <p>"Toxic pollutants" means any pollutant listed as toxic under Section 307(a)(1) or, in the case of "sludge use or disposal practices", any pollutant identified in regulations implementing Section 405(d) of the Clean Water Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(71).]</p>
T-6	<p>Definitions: Hazardous Substances</p> <p>"Hazardous substances" are defined in 40 CFR 116.4. [40 CFR 116.4]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 7 of 20

AI0000009870 (continued):

Narrative Requirements:

Definitions:

Condition No.	Condition
T-7	<p>Definitions: Weekly Average</p> <p>"Weekly average" means the average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. The weekly average for E coli bacteria is the geometric mean of all "daily discharges" measured in a calendar week. In computing the geometric mean for E coli bacteria, one (1) shall be substituted for sample results of zero. For self-monitoring purposes, the value to be reported is the single highest weekly average computed during a calendar month. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(86).]</p>
T-8	<p>Definitions: Quarterly Average</p> <p>"Quarterly Average" means the average of "daily discharges" over a three month period, calculated as the sum of all "daily discharges" measured during the quarter divided by the number of "daily discharges" measured during the quarter. The quarterly average for E coli bacteria is the geometric mean of "daily discharges" measured during the quarter. In computing the geometric mean for E coli bacteria, the value one (1) shall be substituted for sample results of zero. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(61).]</p>
T-9	<p>Definitions: Quarterly Maximum</p> <p>"Quarterly Maximum" means the highest "daily discharge" measured over a three-month period. [11 Miss. Admin. Code Pt. 6, R.1.1.1.A(62).]</p>
T-10	<p>Definitions: Maximum Monthly Average</p> <p>Maximum Monthly Average means the highest "monthly average" over a monitoring period. [40 CFR 122]</p>
T-11	<p>Definitions: Yearly Average</p> <p>"Yearly Average" means the average of "daily discharges" over a calendar year, calculated as the sum of all "daily discharges" measured during the calendar year divided by the number of "daily discharges" measured during the calendar year. The yearly average for E coli bacteria is the geometric mean of "daily discharges" during the calendar year. In computing the geometric mean for E coli bacteria, the value one (1) shall be substituted for sample results of zero. [11 Miss. Admin. Code Pt. 6, R.1.1.1.A(87).]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 8 of 20

AI0000009870 (continued):

Narrative Requirements:

Definitions:

Condition No.	Condition
T-12	Definitions: Yearly Maximum "Yearly Maximum" means the highest "daily discharge" measured over a calendar year. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(88).]
T-13	Definitions:"Submitted" means the document is postmarked on or before the applicable deadline, except as otherwise specified. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(67).]

Condition No.	Condition
T-14	The permittee shall achieve compliance with the effluent limitations specified for discharge in accordance with the following schedule: Upon Permit Issuance. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(9).]
T-15	Within 14 days after either an interim or final date of compliance specified by this permit, the permittee shall provide the Permit Board with written notice of his compliance or noncompliance with the requirements or conditions specified to be completed by that date. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(10).]
T-16	Representative Sampling Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored wastewater. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(28)(e).]
T-17	Reporting If the results for a given sample analysis are such that any parameter (other than E coli) is not detected at or above the minimum level for the test method used, a value of zero will be used for that sample in calculating an arithmetic mean value for the parameter. If the resulting calculated arithmetic mean value for that reporting period is zero, the permittee shall report "NODI = B" on the DMR. For E coli, a value of 1.0 shall be used in calculating the geometric mean. If the resulting E coli mean value is 1.0, the permittee shall report "NODI = B" on the DMR. For each quantitative sample value that is not detectable, the test method used and the minimum level for that method for that parameter shall be attached to and submitted with the DMR. The permittee shall then be considered in compliance with the appropriate effluent limitation and/or reporting requirement. [11 Miss. Admin. Code Pt. 6, Ch. 1, Subch. 2.]

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 9 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-18	<p>Reporting</p> <p>If the permittee monitors any pollutant as prescribed in the permit more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Permit Board. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c)(2).]</p>
T-19	<p>Reporting</p> <p>Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Permit Board in the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c)(3).]</p>
T-20	<p>Test Procedures</p> <p>Test procedures for the analysis of pollutants shall include those set forth in 40 CFR 136 or alternative procedures approved and/or promulgated by EPA. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(30).]</p>
T-21	<p>Records Retention</p> <p>All records and results of monitoring activities required by this permit, including calibration and maintenance records, shall be retained by the permittee for a minimum of three (3) years, unless otherwise required or extended by the Permit Board, copies of which shall be furnished to the Department upon request. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(a).]</p>
T-22	<p>Falsifying Reports</p> <p>Any permittee who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required by the Permit Board to be maintained as a condition in a permit, or who alters or falsifies the results obtained by such devices or methods and/or any written report required by or in response to a permit condition, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for a violation of a permit condition pursuant to Section 49-17-43 of the Code. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(d).]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 10 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-23	<p>Facility Expansion and/or Modification</p> <p>Any facility expansion, production increases, process modifications, changes in discharge volume or location or other changes in operations or conditions of the permittee which may result in a new or increased discharge of waste, shall be reported to the Permit Board by submission of a new application for a permit pursuant to 11 Miss. Admin. Code Pt. 6, R. 1.1.2.A. of the Mississippi Wastewater Regulations, or if the discharge does not violate effluent limitations specified in the permit, by submitting to the Permit Board a notice of a new or increased discharge. [11 Miss. Admin. Code Pt. 6, R. 1.1.4(A)(14).]</p>
T-24	<p>Duty to Comply</p> <p>The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(2).]</p>
T-25	<p>Proper Operation, Maintenance and Replacement</p> <p>The permittee shall at all times properly operate, maintain, and when necessary, promptly replace all facilities and systems of collection, treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. Proper replacement includes maintaining an adequate inventory of replacement equipment and parts for prompt replacement when necessary to maintain continuous collection and treatment of wastewater. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(18).]</p>
T-26	<p>Duty to Mitigate</p> <p>The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of the permit that has a reasonable likelihood of adversely affecting human health or the environment. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(19).]</p>
T-27	<p>Bypassing</p> <p>The permittee shall comply with the terms and conditions regarding bypass found in 40 CFR 122.41(m). [40 CFR 122.41(m)]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 11 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-28	<p>Bypassing - Definitions</p> <p>"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.</p> <p>"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. [40 CFR 122.41(m)]</p>
T-29	<p>Bypassing - Bypass not exceeding limitations</p> <p>The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the notice and prohibition provisions of the bypass requirements in this permit. [40 CFR 122.41(m)]</p>
T-30	<p>Bypassing- Prohibition of Bypass</p> <p>(1) Bypass is prohibited, and the Commission may take enforcement action against a permittee unless:</p> <p>(i) Bypass was unavoidable to prevent loss of life, personal injury, or sever property damage.</p> <p>(ii) There was no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and</p> <p>(iii) The permittee submitted notices as required under the Twenty-Four Hour reporting requirements set forth in this permit.</p> <p>(2) The Commission may approve an anticipated bypass, after considering its adverse affects, if the Commission determines that it will meet the three conditions listed above in paragraph (1) of this permit condition. [40 CFR 122.41(m)]</p>
T-31	<p>Upsets</p> <p>The permittee shall meet the conditions of 40 CFR 122.41(n) regarding "Upsets" and as in the upset requirements of this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 12 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-32	<p>Upsets- Definition</p> <p>"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]</p>
T-33	<p>Upsets - Effect of an Upset</p> <p>An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the "conditions necessary for demonstration of upset" requirements of this permit are met. Any determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, shall not constitute final administrative action subject to judicial review. [11 Miss. Admin. Code Pt. 6, R.1.1.4.A(27).]</p>
T-34	<p>Upsets - Conditions necessary for demonstration of upset</p> <p>A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:</p> <ol style="list-style-type: none">(1) An upset occurred and that the permittee can identify the cause(s) of the upset;(2) The permitted facility was at the time being properly operated;(3) The permittee submitted notice of the upset as required in 40 CFR 122.41(L)(6)(ii)(B)(24-hour notice of noncompliance); and(4) The permittee complied with any remedial measures required under 40 CFR 122.41(d) (Duty to Mitigate). [11 Miss. Admin. Code Pt. 6, R.1.1.4.A(27).]
T-35	<p>Upsets - Burden of proof</p> <p>In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 13 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-36	<p>Removed Substances</p> <p>Solids, sludges, filter backwash, or other residuals removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent such materials from entering State waters and in a manner consistent with the Mississippi Solid Waste Disposal Act, the Federal Resource Conservation and Recovery Act, and the Mississippi Water Pollution Control Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(21).]</p>
T-37	<p>Power Failures</p> <p>If electric power is required, in order to maintain compliance with the conditions and prohibitions of the permit, the permittee shall either:</p> <p>(1) Provide an alternative power source to operate the wastewater control facilities; or, if such alternative power source is not in existence, and no date for its implementation appears in the permit,</p> <p>(2) Halt, reduce, or otherwise control production and/or all wastewater flows upon reduction, loss, or failure of the primary source of power to the wastewater control facilities. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(22).]</p>
T-38	<p>Inspection and Entry</p> <p>The permittee shall allow any authorized Commission representative to enter the permittee's premises at any reasonable time, to have access to and copy any applicable records, to inspect process facilities, treatment works, monitoring methods or equipment or to take samples, as authorized by Section 49-17-21 of the Code. In the event of investigation during an emergency response action, a reasonable time shall be any time of the day or night. Follow-up investigations subsequent to the conclusion of the emergency event shall be conducted at reasonable times. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(17).]</p>
T-39	<p>Transfer of Ownership or Control</p> <p>This permit is not transferable to any person without proper modification of this permit following procedures found in [11 Miss. Admin. Code Pt. 6, R. 1.1.5.C.]</p>
T-40	<p>Signatory Requirements</p> <p>All applications, reports, or information submitted to the Permit Board shall be signed and certified. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 14 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-41	<p>Signatory Requirements - Application Signatures</p> <p>All permit applications shall be signed as follows:</p> <p>(1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making function for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.</p> <p>(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or</p> <p>(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]</p>
T-42	<p>Signatory Requirements -Reports and Other Information</p> <p>All reports required by the permit and other information requested by the Permit Board shall be signed by a person described by the application signature requirements in this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:</p> <p>(1) The authorization is made in writing by a person described by the application signature requirements;</p> <p>(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and</p> <p>(3) The written authorization is submitted to the Permit Board. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 15 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-43	<p>Signatory Requirements - Changes to Authorization</p> <p>If an authorization under the signatory requirements of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the signatory requirements of this permit must be submitted to the Permit Board prior to or together with any reports, information, or applications. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]</p>
T-44	<p>Signatory Requirements - Certification</p> <p>Any person signing a document under the signatory requirements stated in this permit shall make the following certification:</p> <p>"I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]</p>
T-45	<p>Availability of Records</p> <p>Except for information deemed to be confidential under the Mississippi Code Ann. 49-17-39 and 40 CFR 123.41, file information relating to this permit shall be made available for public inspection and copying during normal business hours at the office of the Department of Environmental Quality in Jackson, Mississippi. Written request must be provided in accordance with policies developed by the Commission and must state, specifically, records proposed for review, date proposed for review and copying requirements. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.E.]</p>
T-46	<p>Duty to Provide Information</p> <p>The permittee shall furnish to the Permit Board within a reasonable time any relevant information which the Permit Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. The permittee shall also furnish to the Permit Board upon request, copies of records required to be kept by the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(16).]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 16 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-47	<p>Toxic Pollutants</p> <p>The permittee shall comply with any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) established under Section 307(a) of the Federal Water Pollution Control Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(26).]</p>
T-48	<p>Toxic Pollutants Notification Requirements</p> <p>The permittee shall comply with the applicable provisions of 40 CFR 122.42. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(26).]</p>
T-49	<p>Civil and Criminal Liability</p> <p>(1) Any person who violates a term, condition or schedule of compliance contained within this permit or the Mississippi Water Pollution Control Law is subject to the actions defined by law.</p> <p>(2) Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.</p> <p>(3) It shall not be the defense of the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(24).]</p>
T-50	<p>Oil and Hazardous Substance Liability</p> <p>Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Federal Water Pollution Control Act and applicable provisions under Mississippi Law pertaining to transportation, storage, treatment, or spillage of oil or hazardous substances. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(23).]</p>
T-51	<p>Property Rights</p> <p>The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations. [11 Miss. Admin. Code Pt. 6, R. 1.1.5. E.]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 17 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-52	<p>Severability</p> <p>The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(25).]</p>
T-53	<p>Protection of Confidential Information</p> <p>(1) Pursuant to Miss. Code Ann. ' 49-17-39 and 40 CFR 123.41, the Permit Board shall make available to the public all information contained on any form and all public comments on such information. Effluent data and information concerning air or water quality shall also be made available to the public. Information that is determined by the Commission to be trade secrets shall not be disclosed to the public without prior consent of the source of such information. When a claim of confidentiality is made by a person in accordance with the provisions of Miss. Code Ann. ' 49-17-39, a recommendation on the questions of confidentiality shall be made by the Commission and forwarded to the Regional Administrator (or his/her designee) of EPA for his concurrence in such determination of confidentiality. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.F.]</p>
T-54	<p>Protection of Confidential Information- continued</p> <p>(2) A copy of a State, UIC, or NPDES permit application, public notice, fact sheet, draft permit and other forms relating thereto, including written public comment and other reports, files and information relating to the application not classified as confidential information by the Commission pursuant to part (1) of this requirement, shall be available for public inspection and copying during normal business hours at the office of the Department in Jackson, Mississippi. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.F.]</p>
T-55	<p>Protection of Confidential Information- continued</p> <p>(3) Upon determination by the Commission that information submitted by a permit applicant is entitled to protection against disclosure as trade secrets, the information shall be so labeled and otherwise handled as confidential. Copies of the information and a notice of the Commission's action shall be forwarded to the Regional Administrator (or his/her designee). In making its determination of entitlement to protection as a trade secret, the Commission shall follow the procedure set forth in Miss. Code Ann. ' 49-17-39. In the event the Commission denies the claim of confidentiality, the applicant shall have, upon notification thereof, the right to appeal the Commission's determination in the same manner provided for other orders of the Commission. No disclosure, except to EPA, shall be allowed until any appeal from the determination of the Commission is completed. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.F.]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 18 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-56	<p>Spill Prevention and Best Management Plans</p> <p>Any permittee which has above ground bulk storage capacity, of more than 1320 gallons or any single container with a capacity greater than 660 gallons, of materials and/or liquids (including but not limited to, all raw, finished and/or waste material) with chronic or acute potential for pollution impact on waters of the State and not subject to Mississippi Hazardous Waste Management Regulations or 40 CFR 112 (Oil Pollution Prevention) regulations shall provide secondary containment as found in 40 CFR 112 or equivalent protective measures such as trenches or waterways which would conduct any tank releases to a permitted treatment system or sufficient equalization or treatment capacity needed to prevent chronic/acute pollution impact. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(12)(a).]</p>
T-57	<p>Reopener Clause</p> <p>This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable effluent standard, limitation or storm water regulation issued or approved under Section 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 402(p) of the Federal Water Pollution Control Act if the effluent standard, limitation or regulation so issued or approved:</p> <ol style="list-style-type: none">1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or2. Controls any pollutant not limited in the permit.3. This permit shall be modified to reflect any additional or otherwise more stringent limitations and additional monitoring as determined to be necessary by the results of a Completed TMDL. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.F(1).]
T-58	<p>Closure Requirements</p> <p>Should the permittee decide to permanently close and abandon the premises upon which it operates, it shall provide a Closure Plan to the Permit Board no later than 90 days prior to doing so. This Closure Plan shall address how and when all manufactured products, by-products, raw materials, stored chemicals, and solid and liquid waste and residues will be removed from the premises or permanently disposed of on site such that no potential environmental hazard to the waters of the State will be presented. Closure plan(s) submitted to and approved by Mississippi Department of Environmental Quality for compliance with other environmental regulations will satisfy the closure requirements for those items specifically addressed in the closure plan(s) as long as the closure does not present a potential for environmental hazard to waters of the State. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(11).]</p>

*** Draft Permit ***

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 19 of 20

AI0000009870 (continued):

Narrative Requirements:

Condition No.	Condition
T-59	<p>Permit Actions</p> <p>The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a modification of planned changes or anticipated noncompliance, does not stay any permit condition. [11 Miss. Admin. Code Pt. 6, R. 1.1.5.C(5).]</p>

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

Linde Inc
Facility Requirements
Permit Number:MS0048089
Activity ID No.: PER20210001

Page 20 of 20

RPNT0000000002 (MS0048089-001) Outfall 001 - (Stormwater, condensate from the incoming CO2 Gas Stream and non-contact cooling tower blowdown):

Submittal/Action Requirements:

Condition	Condition
S-1	The Permittee shall submit analytical results on a quarterly Discharge Monitoring Report (DMR): Due quarterly, by the 28th of Jan, April, July, and Oct. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c).]

GENERAL INFORMATION

Linde Inc
118 Shirley Lane
Brandon, MS
Rankin County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
9870	Linde, LLC	Historic Site Name	3/10/2009	12/22/2020
MS0048089	MG Industries, Pisgah Carbon Dioxide Plant	Water - NPDES	3/9/1993	3/8/1998
MS0048089	MG Industries, Pisgah Carbon Dioxide Plant	Water - NPDES	9/1/2000	8/31/2005
9870	MG Industries, Pisgah Carbon Dioxide Plant	Historic Site Name	3/9/1993	6/6/2005
MS0048089	BOC Gases Sandhill	Water - NPDES	12/7/2005	9/24/2008
9870	BOC Group, Inc.	Historic Site Name	6/6/2005	9/10/2008
MS0048089	Linde Inc	Water - NPDES	9/24/2008	3/13/2009
9870 001	MG Industries, Pisgah Carbon Dioxide Plant	GARD	11/29/2001	
9870	Linde, Inc.	Historic Site Name	9/10/2008	3/10/2009
MS0048089	Linde LLC	Water - NPDES	3/13/2009	10/20/2010
MS0048089	Linde LLC	Water - NPDES	10/20/2010	9/30/2015
MS0048089	Linde LLC	Water - NPDES	10/19/2016	3/15/2021
	Branch	Branches Group - Water	7/18/2017	
9870	Linde, Inc.	Official Site Name	12/22/2020	
MS0048089	Linde Inc	Water - NPDES	3/15/2021	9/30/2021

Basin: Pearl River Basin

Location Description:PG - Plant entrance (General) Data collected by Louis Crawford on 2/29/00. Imported from I-sys

*** Draft Permit ***

GENERAL INFORMATION

Relevant Documents: Cover Letter, Form 1, Form 2C, Drawings, Analytical Reports, Data Sheets

*** Draft Permit ***

Page A-2 of A-2