

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY**

In the Matter of:

The Ingersoll Rand Company

McCoy Creek Industrial Park  
Berrien County, Michigan

MDEQ Reference No. AOC-RD-11-003

Proceeding under Sections 20119 and 20134(1) of Part 201, Environmental Remediation, of the  
Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

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**ADMINISTRATIVE ORDER BY CONSENT  
FOR RESPONSE ACTIVITIES**

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INDEX**

I. JURISDICTION .....	1
II. DENIAL OF LIABILITY .....	1
III. PARTIES BOUND .....	1
IV. STATEMENT OF PURPOSE .....	2
V. DEFINITIONS .....	2
VI. FINDINGS OF FACT AND DETERMINATIONS .....	4
VII. COMPLIANCE WITH STATE AND FEDERAL LAWS .....	7
VIII. PERFORMANCE OF RESPONSE ACTIVITIES .....	7
IX. ACCESS .....	16
X. SAMPLING AND ANALYSIS .....	18
XI. EMERGENCY RESPONSE .....	19
XII. <i>FORCE MAJEURE</i> .....	20
XIII. RECORD RETENTION/ACCESS TO INFORMATION .....	21
XIV. PROJECT COORDINATORS AND COMMUNICATIONS/NOTICES .....	23
XV. SUBMISSIONS AND APPROVALS .....	26
XVI. REIMBURSEMENT OF COSTS .....	29
XVII. STIPULATED PENALTIES .....	30
XVIII. DISPUTE RESOLUTION .....	32
XIX. INDEMNIFICATION AND INSURANCE .....	35
XX. COVENANTS NOT TO SUE BY THE STATE .....	36
XXI. RESERVATION OF RIGHTS BY THE STATE .....	37
XXII. COVENANT NOT TO SUE BY INGERSOLL RAND .....	39
XXIII. CONTRIBUTION .....	40
XXIV. MODIFICATIONS .....	41
XXV. SEPARATE DOCUMENTS .....	41
XXVI. SEVERABILITY .....	41

ATTACHMENT A – LEGAL DESCRIPTIONS OF PROPERTY  
ATTACHMENT B – PERFORMANCE STANDARDS  
ATTACHMENT C – FINANCIAL ASSURANCE MECHANISM

## **I. JURISDICTION**

This Administrative Order by Consent (Order) is entered into voluntarily by and between the Michigan Department of Environmental Quality (MDEQ); the Michigan Department of Attorney General (MDAG); and The Ingersoll Rand Company (Ingersoll Rand), pursuant to the authority vested in the MDEQ and the MDAG by law including Sections 20119 and 20134(1) of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.20101 *et seq.* This Order specifies the agreed upon conditions for approval of a Site-Specific Remedial Action Plan Closure Report (RAP Closure Report) for the McCoy Creek Industrial Park, Berrien County, Michigan, and requires the implementation thereof.

## **II. DENIAL OF LIABILITY**

The execution of this Order by Ingersoll Rand is neither an admission or denial of liability with respect to any issue dealt with in this Order nor an admission or denial of any factual allegations or legal determinations stated or implied herein.

## **III. PARTIES BOUND**

3.1 This Order shall apply to and be binding upon Ingersoll Rand and the State and their successors and assigns. Any change in ownership, corporate, or legal status of Ingersoll Rand, including, but not limited to, any transfer of assets, or of real or personal property, shall in no way alter Ingersoll Rand's responsibilities under this Order. To the extent that Ingersoll Rand is the owner of a part or all of the Facility, Ingersoll Rand shall provide the MDEQ with written notice prior to its transfer of ownership of part or all of the Facility and shall provide a copy of this Order to any subsequent owners or successors prior to the transfer of any ownership rights. Ingersoll Rand shall comply with the requirements of Section 20116 of the NREPA, MCL 324.20116, and the Part 201 Rules.

3.2 Notwithstanding the terms of any contract that Ingersoll Rand may enter with respect to the performance of response activities pursuant to this Order, Ingersoll Rand is responsible for compliance with the terms of this Order and shall ensure that its contractors, subcontractors, laboratories, and consultants perform all response activities in conformance with the terms and conditions of this Order.

3.3 The signatories to this Order certify that they are authorized to execute this Order and to legally bind the parties they represent.

#### **IV. STATEMENT OF PURPOSE**

In entering into this Order, it is the mutual intent of the Parties to: (a) conduct all work specified in the MDEQ-approved RAP Closure Report in accordance with its approved implementation schedule; and (b) reimburse the State for Future Response Activity Costs as described in Section XVI, Reimbursement of Costs, of this Order.

#### **V. DEFINITIONS**

5.1 “Effective Date” means the date the RRD Chief signs this Order.

5.2 “Facility” means any area of the Property identified in Attachment A where a hazardous substance in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use has been released, deposited, disposed of, or otherwise comes to be located; and any other area, place, or property where a hazardous substance, in concentrations that exceed these requirements or criteria, has come to be located as a result of the migration of the hazardous substance from the Property.

5.3 “Future Response Activity Costs” means all costs incurred by the State to develop, oversee, enforce, monitor, and document compliance with this Order, and to perform response activities required by this Order, including, but not limited to, costs incurred to: monitor response activities at the Facility, observe and comment on field activities, review and

comment on Submissions, collect and analyze samples, evaluate data, purchase equipment and supplies to perform monitoring activities, attend and participate in meetings, prepare and review cost reimbursement documentation, and perform response activities pursuant to Paragraph 8.6, the MDEQ's Performance of Response Activities, and Section XI, Emergency Response, of this Order. Contractor costs are also considered Future Response Activity Costs. Future Response Activity Costs also include the costs associated with negotiating this settlement.

5.4 "MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those authorized persons or entities acting on its behalf.

5.5 "O&M Costs" means monitoring, operation and maintenance, oversight, and other costs that are determined by the MDEQ to be necessary to assure the effectiveness and integrity of the remedial action as set forth in the MDEQ-approved RAP Closure Report.

5.6 "Part 201" means Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.20101 *et seq.*, and the Part 201 Administrative Rules.

5.7 "Part 201 Rules" means the administrative rules promulgated under Part 201.

5.8 "Party" means Ingersoll Rand or the State. "Parties" means Ingersoll Rand and the State.

5.9 "Clark" means the Clark Equipment Company and its successors.

5.10 "Ingersoll Rand" means the Ingersoll Rand Company and its successors.

5.11 "Property" means the property located in Buchanan, Michigan, and described in the legal descriptions provided in Attachment A.

5.12 “Remedial Action Plan” or “RAP” means a plan for the Facility that satisfies the requirements of Part 201, including, but not limited to, Sections 20118, 20120a, and 20120d of the NREPA; and the Part 201 Rules.

5.13 “RAP Closure Report” means the remedial action plan closure report entitled *Final Closure Report for the McCoy Creek Industrial Park, Buchanan, Michigan*, dated December 31, 2010, prepared by Horizon Environmental, and submitted to the MDEQ on behalf of Ingersoll Rand. The RAP Closure Report also includes the June 11, 2011, “Request to the MDEQ for Mixing Zone-Based GSI Criteria,” and the revisions to the RAP Closure Report as described in the November 15, 2012 letter from Mr. William R. Schikora to Mr. Jeffrey Spruit of the MDEQ.

5.14 “RRD” means the Remediation and Redevelopment Division of the MDEQ and its successor entities.

5.15 “State” or “State of Michigan” means the MDAG and the MDEQ, and any authorized representatives acting on their behalf.

5.16 “Submissions” means all plans, reports, schedules, and other submissions that Ingersoll Rand is required to provide to the State or the MDEQ pursuant to this Order. “Submissions” does not include the notifications set forth in Section XII, *Force Majeure*, of this Order.

5.17 Unless otherwise stated herein, all other terms used in this Order, which are defined in Part 3, Definitions, of the NREPA, MCL 324.301; Part 201; or the Part 201 Rules, shall have the same meaning in this Order as in Parts 3 and 201 and the Part 201 Rules. Unless otherwise specified in this Order, “day” means a calendar day.

## **VI. FINDINGS OF FACT AND DETERMINATIONS**

The State makes the following findings of fact and determinations.

6.1 The McCoy Creek Industrial Park is located in the northeast quarter of the City of Buchanan, Berrien County, Michigan.

6.2 Hazardous substances including, but not limited to, petroleum hydrocarbons, metals, and volatile organic compounds are present in the soil and groundwater at the McCoy Creek Industrial Park in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use.

6.3 The McCoy Creek Industrial Park Facility is a "facility" as that term is defined in Section 20101(l)(s) of the NREPA.

6.4 The Facility was originally occupied for industrial purposes beginning in the late 1800s and early 1900s. Clark historically manufactured drill bits, truck axles, brake shoes, hydraulic equipment, and lift trucks at the Facility until 1983. In 1983, Clark ceased operations at the Facility and transferred the property to the Buchanan Downtown Development Authority. Since 1983, various parcels of property located at the Facility have been transferred by sale or lease to various industrial and commercial users.

6.5 Clark was an owner and operator of the Facility at the time of disposal of hazardous substances at the Facility. Clark is responsible for an activity causing a release or threat of release at the Facility pursuant to Section 20126(1)(b) of the NREPA.

6.6 On December 18, 1996, the MDAG, MDEQ, and Clark entered into the 1996 Order that required Clark to perform certain response activities at the Facility and submit a remedial action plan that complies with Part 201.

6.7 At the time of entry of the 1996 Order, Clark was a subsidiary of Ingersoll Rand. Ingersoll Rand assumed responsibility for implementing the 1996 Order on behalf of its subsidiary. On July 29, 2007, Ingersoll Rand sold Clark to Doosan Infracore Co., Ltd., however, Ingersoll Rand retained ownership of a portion of the Facility and the responsibility to perform response activities at the Facility.

6.8 On December 31, 2010, Ingersoll Rand submitted the final RAP Closure Report for review and approval pursuant to the 1996 Order.

6.9 Ingersoll Rand has requested that the State enter into an agreement in which Ingersoll Rand assumes all of the obligations to implement the RAP Closure Report.

6.10 In recognition of the sale of Clark, the Parties have determined that it is in the mutual interest of the Parties to enter into this Order to assure future compliance with the RAP Closure Report.

6.11 Although entry of this Order will supersede and render null any obligations that Ingersoll Rand had or assumed under the 1996 Order, nothing in this Order shall be construed to supersede or render null any obligation that Clark had or has under the 1996 Order, Part 201, or any other applicable law with respect to the Facility. MDEQ's entry of this Order with Ingersoll Rand shall not constitute an admission that Clark has no further liability or obligation with respect to the Facility, and, in fact, the MDEQ expressly reserves all such rights against Clark.

6.12 In order to protect public health, safety, and welfare, and the environment, and to abate the danger or threat caused by the release or threat of release of hazardous substances at the Facility, it is necessary and appropriate that response activities provided in the Order be performed at the Facility.

On the basis of these findings of fact and determinations, the State has determined that entry of this Order will expedite the performance of response activities, that Ingersoll Rand will



properly perform the response activities required by this Order, and that the entry of this Order is in the public interest and will minimize litigation.

BASED ON THE FOREGOING FACTS AND DETERMINATIONS, THE STATE HEREBY ORDERS INGERSOLL RAND, AND INGERSOLL RAND HEREBY AGREES, TO PERFORM THE RESPONSE ACTIVITIES AND PAY STATE-INCURRED RESPONSE ACTIVITY COSTS AS SPECIFIED IN THIS ORDER.

## **VII. COMPLIANCE WITH STATE AND FEDERAL LAWS**

7.1 All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable or relevant and appropriate state and federal laws, rules, and regulations, including, but not limited to, Part 201, the Part 201 Rules, and laws relating to occupational safety and health. Other agencies may also be called upon to review the performance of response activities under this Order.

7.2 This Order does not relieve Ingersoll Rand's obligation to obtain and maintain compliance with permits including, but not limited to, a National Pollutant Discharge Elimination System (NPDES) permit, if applicable.

## **VIII. PERFORMANCE OF RESPONSE ACTIVITIES**

### **8.1 Performance Objectives**

Ingersoll Rand shall perform all necessary response activities at the Facility to comply with the requirements of the RAP Closure Report, including the response activities required to meet the performance objectives outlined in this Order.

(a) Ingersoll Rand shall perform the remedial action as specified in the RAP Closure Report. The performance objectives of the remedial action in the RAP Closure Report are to:

(i) Meet and maintain compliance with the cleanup criteria as established under Section 20120a(1)(a)-(d) or 20120a(2), and Sections 20120a(15) and (17) and 20120e of the NREPA.

(ii) Comply with all applicable requirements of Sections 20118, 20120a, and 20120d of the NREPA, and the Part 201 Rules.

(iii) Assure the ongoing effectiveness and integrity of the remedial action specified in the RAP Closure Report.

(iv) Allow for the continued use of the Facility consistent with local zoning pursuant to Section 20120a(6) of the NREPA.

(v) Meet and maintain the performance standards employed by the RAP Closure Report as specified in Section 3.4 of the RAP Closure Report and provided in Attachment B.

## 8.2 RAP Closure Report

(a) Ingersoll Rand shall perform the RAP Closure Report activities in accordance with the MDEQ-approved implementation schedule and submit reports in accordance with the RAP Closure Report. All technical and administrative requirements submitted to the MDEQ, which in combination constitute an MDEQ-approved RAP Closure Report, are incorporated into this Order, and are an enforceable part of this Order. The administrative components of the RAP Closure Report include, but are not limited to, the following: (i) land and resource use restrictions, (ii) a financial assurance mechanism, and (iii) and permanent markers.

### (i) Land and Resource Use Restrictions

Ingersoll Rand has filed, with the Berrien County Register of Deeds, the restrictive covenants required by the RAP Closure Report. The form and content of the restrictive covenants was approved by the MDEQ. Ingersoll Rand has provided a true copy of the recorded restrictive covenants with the liber and page numbers to the MDEQ. Within thirty (30) days of the Effective Date of this Order, Ingersoll Rand shall provide notice of the restrictive covenants to the zoning authority of the local unit of government within which the Facility is located.

(ii) Financial Assurance

Ingersoll Rand shall provide and maintain financial assurance to assure the performance of the response activities required by the RAP Closure Report including, but not limited to, monitoring, operation and maintenance, oversight, and other costs (collectively referred to as "O&M Costs") that are determined by the MDEQ to be necessary to assure the effectiveness and integrity of the remedial action as set forth in an RAP Closure Report. The initial financial assurance mechanism (FAM) approved by the MDEQ is a letter of credit attached hereto as Attachment C. The cost of activities covered by the FAM shall be documented on the basis of an annual estimate of maximum costs for the activity as if they were to be conducted by a person under contract to the State, not employees of Ingersoll Rand. The FAM shall be in an amount sufficient to cover O&M Costs at the Facility for a thirty (30)-year period and shall be in a form that allows the MDEQ to immediately contract for the response activities for which financial assurance is required in the event Ingersoll Rand fails to implement the required tasks.

Sixty (60) days prior to the five (5)-year anniversary of the Effective Date of this Order, Ingersoll Rand shall provide to the MDEQ a report containing the actual O&M Costs for the previous five (5)-year period and an estimate of the amount of funds necessary to assure O&M Costs for the following thirty (30)-year period, given the financial trends in existence at the time of preparation of the report (O&M Cost Report). The O&M Cost Report shall include all assumptions and calculations used in preparing the cost estimate and shall be signed by an authorized representative of Ingersoll Rand who shall confirm the validity of the data. Ingersoll Rand may use a present worth analysis if an interest-accruing FAM is selected. Ingersoll Rand shall submit the O&M Cost Report every five (5) years. Ingersoll Rand shall revise the amount of funds secured by the FAM in accordance with that updated five (5)-year cost estimate unless otherwise directed by the MDEQ.

If, at any time, the MDEQ determines that the FAM does not adequately secure sufficient funds, Ingersoll Rand shall capitalize or revise the existing FAM or establish a new FAM acceptable to the MDEQ. If Ingersoll Rand can demonstrate that the FAM provides

funds in excess of those needed to cover O&M Costs for the Facility, Ingersoll Rand may submit a request to the MDEQ to reduce the amount of funds secured by the FAM. Ingersoll Rand shall maintain the FAM in perpetuity or until Ingersoll Rand can demonstrate to the MDEQ that such FAM is no longer necessary to protect the public health, safety, or welfare, or the environment, and is no longer necessary to assure the effectiveness and integrity of the remedial action as set forth in the RAP Closure Report. Any modification of a FAM will be considered to be a modification of the RAP Closure Report, and any such modifications must be made in accordance with Section XXIV, Modifications, of this Order.

(iii) Permanent Markers

Ingersoll Rand shall install permanent markers at the Facility within one hundred eighty (180) days following the Effective Date of this Order. Ingersoll Rand shall install the permanent markers in compliance with the requirements set forth in Section 4.12 of the RAP Closure Report regarding the materials of construction, inscription, installation, and location of the permanent markers.

8.3 Venting Groundwater Discharge Authorization

(a) This Order authorizes, pursuant to Section 20120a(15) of the NREPA, the discharge of those hazardous substances identified in the RAP Closure Report for which mixing zone-based groundwater surface water interface (GSI) criteria have been developed by the MDEQ. In addition, this Decree authorizes the discharge of mercury pursuant to the Part 4 Rules, Water Quality Standards, promulgated under Part 31, Water Resources Protection, of the NREPA (Part 31), governing variances from the water quality standard for the discharge of mercury from the Facility. Except as provided in Paragraphs 8.3(b)-(d) of this Order, the authorization is effective for a period of five (5) years beginning on the Effective Date of this Order. At no time does this Order authorize the discharge of:

(i) Hazardous substances in excess of the mixing zone-based GSI criteria established in the RAP Closure Report;

(ii) Hazardous substances that were not specified in the RAP Closure Report and this Order; or

(iii) Hazardous substances in excess of the applicable criteria developed pursuant to Part 201 for which mixing zone-based GSI criteria are not provided in the RAP Closure Report.

In the event the MDEQ-approval of the RAP Closure Report is nullified pursuant to Paragraph 8.5(b) of this Order and the nullification is based upon the groundwater discharge authorization no longer being protective of public health, safety, or welfare, or the environment, Ingersoll Rand shall, within thirty (30) days of acquiring knowledge of such nullification, provide to the MDEQ a request for a revised mixing zone determination and reauthorization of the venting groundwater discharge.

(b) At least one hundred eighty (180) days prior to the five (5)-year anniversary of the Effective Date of this Order, Ingersoll Rand shall submit to the MDEQ for review and approval a GSI Report. Ingersoll Rand shall submit subsequent GSI Reports every five (5) years thereafter until authorization of a discharge to the waters of the State is no longer required. The GSI Report shall provide all information and data concerning the discharge of contaminated groundwater venting from the Facility to the surface water that is necessary to assess Ingersoll Rand's ongoing compliance with Part 201.

(c) The GSI Report shall, at a minimum, include the following information:

(i) The identity of the Facility and the MDEQ reference number of this Order.

(ii) The name of the receiving surface water body and the location of the venting groundwater contaminant plume. This information should be provided in narrative form, which includes a quarter-quarter section description, and in map form.

(iii) The location, nature, and chemical characteristics of the past, and ongoing source(s) of hazardous substances in the groundwater contaminant plume, including a description of whether the source has been removed or is still present. If the source is still present, identify the type, concentration, and mobility of these hazardous substances.

(iv) A summary of all GSI monitoring data and information collected over the previous five (5) years. The summary shall include: (1) the Chemical Abstract Service Number for each hazardous substance; (2) the worst case maximum concentrations of the

hazardous substances in the groundwater contaminant plume at the GSI; (3) the identification of all hazardous substances that are non-aqueous phase liquids (light and dense), if present; (4) documentation of any changes in the groundwater contaminant plume's volume or concentrations of hazardous substances; and (5) the concentrations of the hazardous substances in the source area if hazardous substances from the source have not yet reached the groundwater, but are expected to do so. This information shall be provided in narrative and tabular form, and in map form that includes both a plan view showing groundwater concentration contours of the hazardous substances and a cross-sectional view, including the GSI.

(v) An analysis of the groundwater contaminant plume's general chemistry parameters, including, but not limited to, the major cations and anions, ammonia, chemical and biological oxygen demand, chlorides, and phosphorus.

(vi) The discharge rate in cubic feet per second of the groundwater contaminant plume. The discharge rate of the groundwater contaminant plume shall be calculated using that portion of the groundwater contaminant plume which is or may become contaminated above the generic GSI criteria.

(vii) The location of any other groundwater contaminant plumes entering the same surface water body in the vicinity of the Facility and their constituents and concentrations, if available.

(viii) All information required pursuant to Rule 323.1103 of the Part 4 Rules (Water Quality Standards) to request a renewal of the variance from the water quality standard for the discharge of mercury from the Facility.

(ix) Any other information required by the MDEQ at the time of the GSI Report.

(x) A certification statement and signature of an appropriate person. The certification statement shall be: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this report and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information."

(d) The MDEQ shall review the GSI Report and determine if the discharge complies with the mixing zone-based GSI criteria applicable at the time the GSI Report is submitted. In the event the MDEQ determines that the discharge complies with the then-current applicable mixing zone-based GSI criteria, the authorization to discharge pursuant to Section 20120a(15) of the NREPA shall be reauthorized for a period of five (5) years subject to the conditions specified in Paragraph 8.3(a) of this Order, and the MDEQ shall so notify Ingersoll Rand. In the event the MDEQ determines that the discharge does not comply with the then-current applicable mixing zone-based GSI criteria, the MDEQ approval of the RAP Closure Report is nullified in accordance with Paragraph 8.5(b) of this Order.

#### 8.4 Modification of the RAP Closure Report

(a) If the MDEQ determines that a modification to the RAP Closure Report is necessary to meet and maintain the applicable performance objectives specified in Paragraph 8.1, to comply with Part 201, or to meet any other requirement of this Order, the MDEQ may require that such modification be incorporated into the RAP Closure Report approved under this Order. If extensive modifications are necessary, the MDEQ may require Ingersoll Rand to develop and submit a new RAP Closure Report. Ingersoll Rand may request that the MDEQ consider a modification to the RAP Closure Report by submitting such request for modification along with the proposed change and the justification for that change to the MDEQ for review and approval. Any such request for modification by Ingersoll Rand must be forwarded to the MDEQ at least thirty (30) days prior to the date that the performance of any affected response activity is due. Any RAP Closure Report modifications or any new RAP Closure Report shall be developed in accordance with the applicable requirements of this Section and shall be submitted to the MDEQ for review and approval in accordance with the procedures set forth in Section XV, Submissions and Approvals, of this Order.

(b) Upon receipt of the MDEQ's approval, Ingersoll Rand shall perform the response activities specified in a modified RAP Closure Report or a new RAP Closure Report in accordance with the MDEQ-approved implementation schedules.

#### 8.5 Voidance and Nullification of the MDEQ's Approval of the RAP Closure Report

(a) The remedial action provided for in the RAP Closure Report relies on the cleanup criteria established under Section 20120a(1)(b)-(d) or (2) of the NREPA. The MDEQ has determined that the following provisions are applicable to the remedial action provided for in the RAP Closure Report and if there is a lapse or if any of these provisions are not complied with, the MDEQ's approval of the RAP Closure Report is void from the time of the lapse or violation until the lapse or violation is corrected in accordance with Paragraph 8.5(c) and to the satisfaction of the MDEQ:

(i) Required land use or resource use restrictions; specifically, but not limited to:

(1) A court of competent jurisdiction determines that a land use or resource use restriction is unlawful;

(2) A land use or resource use restriction is violated in a manner that results in the RAP Closure Report not being protective of public health, safety, and welfare, or the environment;

(ii) Monitoring

(iii) Operation and Maintenance

(iv) Permanent Markers

(v) Financial Assurance

(b) If any of the circumstances listed in Rule 299.5520(11) and (12) occur, the MDEQ's approval of the RAP Closure Report shall be nullified until the lapse or violation is corrected to the satisfaction of the MDEQ.

(c) Within thirty (30) days of Ingersoll Rand becoming aware of a lapse or violation under Paragraph 8.5(a) or (b), Ingersoll Rand shall provide to the MDEQ, for review and approval, a written notification of such lapse or violation. This notification shall include a description of the nature of the lapse or violation, an evaluation of the impact or potential impact of the lapse or violation on the effectiveness and integrity of the RAP, and one of the following:

(i) If Ingersoll Rand has corrected the lapse or violation, a written demonstration of how and when Ingersoll Rand corrected the lapse or violation.



(ii) If Ingersoll Rand has not yet corrected the lapse or violation, a work plan and implementation schedule for addressing the lapse or violation.

(iii) If Ingersoll Rand believes it will not be able to correct the lapse or violation without modifying the RAP Closure Report, a work plan and implementation schedule outlining the response activities Ingersoll Rand will take to comply with Part 201 and to assure that the Facility does not pose a threat to public health, safety, or welfare, or the environment.

The work plan and implementation schedule identified in Paragraph 8.5(c)(ii) and (iii) shall provide for the development of any response activity work plans and associated implementation schedules that are necessary to assure protection of public health, safety, and welfare, and the environment, including work plans for Interim Response Activities, a Remedial Investigation to provide additional information to support the selection and approval of an alternative RAP, and an approvable alternative RAP that meets the performance objectives specified in Paragraph 8.1 and complies with Part 201. Ingersoll Rand shall submit and the MDEQ will review and approve plans and schedules submitted pursuant to this Section in accordance with the procedures set forth in Section XV, Submissions and Approvals, of this Order. Upon receipt of the MDEQ's approval, Ingersoll Rand shall perform the response activities in accordance with the MDEQ-approved work plans.

(d) If Ingersoll Rand does not comply with all of the requirements of Paragraph 8.5(c), stipulated penalties as specified in Paragraph 17.2 of this Order shall begin to accrue the day the lapse or violation under Paragraph 8.5(a) or (b) occurred and continue to accrue until the lapse or violation is corrected to the satisfaction of the MDEQ.

(e) The provisions in Sections 8.5(a) and (b) are not subject to the dispute resolution procedures set forth in Section XVIII, Dispute Resolution, of this Order.

#### 8.6 The MDEQ's Performance of Response Activities

If Ingersoll Rand ceases to perform the response activities required by this Order, is not performing response activities in accordance with this Order, or is performing response activities in a manner that causes or may cause an endangerment to human health or the environment, the MDEQ may, at its option and upon providing thirty (30) days' prior written notice to Ingersoll Rand, take over the performance of those response activities. The MDEQ, however, is not required to provide thirty (30) days' written notice prior to performing response activities that the

MDEQ determines are necessary pursuant to Section XI, Emergency Response, of this Order. If the MDEQ finds it necessary to take over the performance of response activities that Ingersoll Rand is obligated to perform under this Order, Ingersoll Rand shall reimburse the State for its costs to perform these response activities, including any accrued interest. Interest, at the rate specified in Section 20126a(3) of the NREPA, shall begin to accrue on the State's costs on the day the State begins to incur costs for those response activities. Costs incurred by the State to perform response activities pursuant to this Paragraph shall be considered to be "Future Response Activity Costs" and Ingersoll Rand shall provide reimbursement of these costs and any accrued interest to the State in accordance with Paragraphs 16.1, 16.3, and 16.4 of Section XVI, Reimbursement of Costs, of this Order.

## **IX. ACCESS**

9.1 Upon the Effective Date of this Order, Ingersoll Rand shall allow the MDEQ and its authorized employees, agents, representatives, contractors, and consultants to enter the Facility and associated properties at all reasonable times to the extent access to the Facility and any associated properties are owned, controlled by, or available to Ingersoll Rand. Upon presentation of proper credentials and upon making a reasonable effort to contact the person in charge of the Facility, MDEQ staff and its authorized employees, agents, representatives, contractors, and consultants shall be allowed to enter the Facility and associated properties for the purpose of conducting any activity to which access is required for the implementation of this Order or to otherwise fulfill any responsibility under state or federal laws with respect to the Facility, including, but not limited to, the following:

- (a) Monitoring response activities or any other activities taking place pursuant to this Order at the Facility;
- (b) Verifying any data or information submitted to the MDEQ;
- (c) Assessing the need for, or planning, or conducting, investigations relating to the Facility;
- (d) Obtaining samples;
- (e) Assessing the need for, or planning, or conducting, response activities at or near the Facility;

(f) Assessing compliance with requirements for the performance of monitoring, operation and maintenance, or other measures necessary to assure the effectiveness and integrity of the remedial action;

(g) Inspecting and copying non-privileged records, operating logs, contracts, or other documents;

(h) Determining whether the Facility or other property is being used in a manner that is or may need to be prohibited or restricted pursuant to this Order; and

(i) Assuring the protection of public health, safety, and welfare, and the environment.

9.2 To the extent that the Facility, or any other property where the response activities are to be performed by Ingersoll Rand under this Order, is owned or controlled by persons other than Ingersoll Rand, Ingersoll Rand shall use its best efforts to maintain access for the Parties and their authorized employees, agents, representatives, contractors, and consultants.

9.3 If it is necessary to access additional properties to perform the response activities required under this Order or access to a property that was previously granted is later denied, Ingersoll Rand shall use its best efforts to secure access through written agreements or judicial orders providing access for the Parties and their authorized employees, agents, representatives, contractors, and consultants. Ingersoll Rand shall provide the MDEQ with a copy of each written access agreement or judicial order secured pursuant to this Section. For purposes of this Paragraph, "best efforts" includes, but is not limited to, providing reasonable consideration acceptable to the owner or taking judicial action to secure such access. If judicial action is required to obtain access, Ingersoll Rand shall provide documentation to the MDEQ that such judicial action has been filed in a court of appropriate jurisdiction no later than sixty (60) days after Ingersoll Rand was refused voluntary access to perform the response activities for which such access is needed. If Ingersoll Rand has not been able to obtain access within sixty (60) days after filing judicial action, Ingersoll Rand shall promptly notify the MDEQ of the status of its efforts to obtain access and shall describe how any delay in obtaining access may affect the performance of response activities for which the access is needed. Any delay in obtaining access shall not be an excuse for delaying the performance of response activities, unless the State

determines that the delay was caused by a *Force Majeure* event pursuant to Section XII, *Force Majeure*, of this Order.

9.5 Any lease, purchase, contract, or other agreement entered into by Ingersoll Rand that transfers to another person a right of control over the Facility or a portion of the Facility shall contain a provision preserving for the MDEQ or any other person undertaking the response activities, and their authorized representatives, the access provided under this Section, and Section XIII, Record Retention/Access to Information, of this Order.

9.5 Any person granted access to the Facility pursuant to this Order shall comply with all applicable health and safety laws and regulations.

## **X. SAMPLING AND ANALYSIS**

10.1 All sampling and analysis conducted pursuant to this Order shall be in accordance with the procedures specified in the RAP Closure Report.

10.2 Ingersoll Rand, or its consultants or subcontractors, shall provide the MDEQ a ten (10)-day notice prior to any sampling activity to be conducted pursuant to this Order to allow the MDEQ Project Coordinator, or his or her authorized representative, the opportunity to take split or duplicate samples or to observe the sampling procedures. In circumstances where a ten (10)-day notice is not possible, Ingersoll Rand or its consultants or subcontractors shall provide notice of the planned sampling activity as soon as possible to the MDEQ Project Coordinator to explain why earlier notification was not possible. If the MDEQ Project Coordinator concurs with the explanation provided, Ingersoll Rand may forego the ten (10)-day notification period for that particular sampling event.

10.3 Ingersoll Rand shall provide the MDEQ with the results of all environmental sampling, and other analytical data generated in the performance or monitoring of any requirement under this Order; Part 31, Part 201, Part 211, Underground Storage Tank

Regulations, and Part 213, Leaking Underground Storage Tanks, of the NREPA; or other relevant authorities.

10.4 For the purpose of quality assurance monitoring, Ingersoll Rand shall assure that the MDEQ and its authorized representatives are allowed access to any laboratory used by Ingersoll Rand in implementing this Order.

## **XI. EMERGENCY RESPONSE**

11.1 If during the course of Ingersoll Rand performing response activities conducted pursuant to this Order, an act or the occurrence of an event causes a release or threat of release of a hazardous substance at or from the Facility, or causes exacerbation of existing contamination at the Facility, and the release, threat of release, or exacerbation poses or threatens to pose an imminent and substantial endangerment to public health, safety, or welfare, or the environment, Ingersoll Rand shall immediately undertake all appropriate actions to prevent, abate, or minimize such release, threat of release, or exacerbation; and shall immediately notify the MDEQ Project Coordinator. In the event of the MDEQ Project Coordinator's unavailability, Ingersoll Rand shall notify the Pollution Emergency Alerting System (PEAS) at 1-800-292-4706. In such an event, any actions taken by Ingersoll Rand shall be in accordance with all applicable health and safety laws and regulations and with the provisions of the Health and Safety Plan included in Appendix I of the RAP Closure Report.

11.2 Within ten (10) days of notifying the MDEQ of such an act or event, Ingersoll Rand shall submit a written report setting forth a description of the act or event that occurred and the measures taken or to be taken to mitigate any release, threat of release, or exacerbation caused or threatened by the act or event and to prevent recurrence of such an act or event. Regardless of whether Ingersoll Rand notifies the MDEQ under this Section, if an act or event causes a release, threat of release, or exacerbation, the MDEQ may: (a) require Ingersoll Rand to stop response activities at the Facility for such period of time as may be needed to prevent or abate any such release, threat of release, or exacerbation; (b) require Ingersoll Rand to undertake any actions that the MDEQ determines are necessary to prevent or abate any such release, threat

of release, or exacerbation; or (c) undertake any actions that the MDEQ determines are necessary to prevent or abate such release, threat of release, or exacerbation. This Section is not subject to the dispute resolution procedures set forth in Section XVIII, Dispute Resolution, of this Order.

## **XII. FORCE MAJEURE**

12.1 Ingersoll Rand shall perform the requirements of this Order within the time limits established herein, unless performance is prevented or delayed by events that constitute a “*Force Majeure*.” Any delay in the performance attributable to a *Force Majeure* shall not be deemed a violation of this Order in accordance with this Section.

12.2 For the purposes of this Order, a *Force Majeure* event is defined as any event arising from causes beyond the control of and without the fault of Ingersoll Rand, of any person controlled by Ingersoll Rand, or of Ingersoll Rand’s contractors that delays or prevents the performance of any obligation under this Order despite Ingersoll Rand’s “best efforts to fulfill the obligation.” The requirement that Ingersoll Rand exercise “best efforts to fulfill the obligation” includes Ingersoll Rand using best efforts to anticipate any potential *Force Majeure* event and to address the effects of any potential *Force Majeure* event during and after the occurrence of the event, such that Ingersoll Rand minimizes any delays in the performance of any obligation under this Order to the greatest extent possible. *Force Majeure* includes an occurrence or nonoccurrence arising from causes beyond the control of and without the fault of Ingersoll Rand, such as an act of God, untimely review of permit applications or submissions by the MDEQ or other applicable authority, and acts or omissions of third parties that could not have been avoided or overcome by the diligence of Ingersoll Rand and that delay the performance of an obligation under this Order. *Force Majeure* does not include, among other things, unanticipated or increased costs, changed financial circumstances, or failure to obtain a permit or license as a result of actions or omissions of Ingersoll Rand.

12.3 Ingersoll Rand shall notify the MDEQ by telephone within seventy-two (72) hours of discovering any event that causes a delay in its compliance with any provision of this Order. Verbal notice shall be followed by written notice within ten (10) calendar days and shall

describe, in detail, the anticipated length of delay for each specific obligation that will be impacted by the delay, the cause or causes of delay, the measures taken by Ingersoll Rand to prevent or minimize the delay, and the timetable by which those measures shall be implemented. Ingersoll Rand shall use its best efforts to avoid or minimize any such delay.

12.4 Failure of Ingersoll Rand to comply with the notice requirements of Paragraph 12.3, above, shall render this Section XII void and of no force and effect as to the particular incident involved. The MDEQ may, at its sole discretion and in appropriate circumstances, waive the notice requirements of Paragraph 12.3.

12.5 If the parties agree that the delay or anticipated delay was beyond the control of Ingersoll Rand, this may be so stipulated and the parties to this Order may agree upon an appropriate modification of this Order. If the parties to this Order are unable to reach such agreement, the dispute shall be resolved in accordance with Section XVIII, Dispute Resolution, of this Order. The burden of proving that any delay was beyond the control of Ingersoll Rand, and that all the requirements of this Section have been met by Ingersoll Rand, is on Ingersoll Rand.

12.6 An extension of one compliance date based upon a particular incident does not necessarily mean that Ingersoll Rand qualifies for an extension of a subsequent compliance date without providing proof regarding each incremental step or other requirement for which an extension is sought.

### **XIII. RECORD RETENTION/ACCESS TO INFORMATION**

13.1 Ingersoll Rand shall preserve and retain, for a period of ten (10) years after completion of operation and maintenance and long-term monitoring at the Facility, all records, sampling and test results, charts, and other documents relating to the release or threatened release of hazardous substances, and the storage, generation, disposal, treatment, and handling of hazardous substances at the Facility; and any other records that are maintained or generated pursuant to any requirement of this Order, including records that are maintained or generated by representatives, consultants, or contractors of Ingersoll Rand. Ingersoll Rand shall retain any

records pertaining to the land use or resource use restrictions relied upon by the RAP Closure Report in perpetuity until the MDEQ determines that land use and resource use restrictions are no longer needed.

13.2 After the ten (10)-year period of document retention following completion of operation and maintenance and long-term monitoring at the Facility, Ingersoll Rand may seek written permission from the DEQ to destroy any documents that are not required to be held in perpetuity. In the alternative, Ingersoll Rand may make a written commitment, with the MDEQ's approval, to continue to preserve and retain the documents for a specified period of time, or Ingersoll Rand may offer to relinquish custody of all documents to the MDEQ. In any event, Ingersoll Rand shall obtain the MDEQ's written permission prior to the destruction of any documents covered by this Paragraph. Ingersoll Rand's request shall be accompanied by a copy of this Order and sent to the address listed in Section XIV, Project Coordinators and Communications/Notices, of this Order, or to such other address as may subsequently be designated in writing by the MDEQ.

13.3 Upon request, Ingersoll Rand shall provide to the MDEQ copies of all documents and information within its possession, or within the possession or control of its employees, contractors, agents, or representatives, relating to the performance of response activities or other requirements of this Order, including, but not limited to, records regarding the collection and analysis of samples, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing forms, or other correspondence, documents, or information related to response activities. Upon request, Ingersoll Rand shall also make available to the MDEQ, upon reasonable notice, Ingersoll Rand's employees, contractors, agents, or representatives with knowledge of relevant facts concerning the performance of response activities.

13.3 If Ingersoll Rand submits documents or information to the MDEQ that Ingersoll Rand believes are entitled to protection as provided for in Section 20117(10) of the NREPA, Ingersoll Rand may designate in that submission the documents or information which it believes are entitled to such protection. If no such designation accompanies the information when it is submitted to the MDEQ, the MDEQ may provide the information to the public without further



notice to Ingersoll Rand. Information described in Section 20117(11)(a)-(h) of the NREPA shall not be claimed as confidential or privileged by Ingersoll Rand. Information or data generated under this Order shall not be subject to Part 148, Environmental Audit Privilege and Immunity, of the NREPA, MCL 324.14801 *et seq.*

#### **XIV. PROJECT COORDINATORS AND COMMUNICATIONS/NOTICES**

14.1 Each Party shall designate one or more Project Coordinators. Whenever notices, progress reports, information on the collection and analysis of samples, sampling data, work plan submissions, approvals, or disapprovals, or other technical submissions are required to be forwarded by one Party to the other Party under this Order, or whenever other communications between the Parties is needed, such communications shall be directed to the designated Project Coordinator at the address listed below. Notices and submissions may be initially provided by electronic means but a hard copy must be concurrently sent. If any Party changes its designated Project Coordinator, the name, address, and telephone number of the successor shall be provided to the other Party, in writing, as soon as practicable.

A. As to the MDEQ:

(1) For all matters pertaining to this Order, except those specified in Paragraphs 14.1A(2), (3), and (4) below:

Jeffrey Spruit, Project Coordinator  
Kalamazoo District Office  
Remediation and Redevelopment Division  
Michigan Department of Environmental Quality  
7953 Adobe Road  
Kalamazoo, MI 49009  
Phone: 269-567-3521  
Fax: 269-567-9440  
E-mail Address: [spruitj@michigan.gov](mailto:spruitj@michigan.gov)

This Project Coordinator will have primary responsibility for the MDEQ for overseeing the performance of response activities at the Facility and other requirements specified in this Order. Copies of all Submissions that are sent to this Project Coordinator shall also be provided to the Kalamazoo District Supervisor at the same address as indicated above.

(2) For all matters specified in this Order that are to be directed to the RRD Chief:

Chief, Remediation and Redevelopment Division  
Michigan Department of Environmental Quality  
P.O. Box 30426  
Lansing, MI 48909-7926  
Phone: 517-335-1104  
Fax: 517-373-2637

Via courier:

Chief, Remediation and Redevelopment Division  
Michigan Department of Environmental Quality  
Constitution Hall, 4<sup>th</sup> Floor, South Tower  
525 West Allegan Street  
Lansing, MI 48933-2125

A copy of all correspondence that is sent to the Chief of the RRD shall also be provided to the MDEQ Project Coordinator designated in Paragraph 14.1A(1).

(3) For questions concerning Record Retention pursuant to Section XIII, Record Retention/Access to Information, of this Order; and for questions concerning financial matters pursuant to Section VIII, Performance of Response Activities, of this Order, including financial assurance mechanisms associated with the RAP Closure Report:

Chief, Compliance and Enforcement Section  
Remediation and Redevelopment Division  
Michigan Department of Environmental Quality  
P.O. Box 30426  
Lansing, MI 48909-7926  
Phone: 517-373-7818  
Fax: 517-373-2637

Via courier:

Chief, Compliance and Enforcement Section  
Remediation and Redevelopment Division  
Michigan Department of Environmental Quality  
Constitution Hall, 4<sup>th</sup> Floor, South Tower  
525 West Allegan Street  
Lansing, MI 48933-2125

A copy of all correspondence that is sent to the Chief of the Compliance and Enforcement Section, RRD, shall also be provided to the MDEQ Project Coordinator designated in Paragraph 14.1A(1).

(4) For all payments pursuant to Section XVI, Reimbursement of Costs, and Section XVII, Stipulated Penalties, of this Order:

Revenue Control Unit  
Finance Section  
Administration Division  
Michigan Department of Environmental Quality  
P.O. Box 30657  
Lansing, MI 48909-8157

Via courier:

Revenue Control Unit  
Finance Section  
Administration Division  
Michigan Department of Environmental Quality  
Constitution Hall, 5<sup>th</sup> Floor, South Tower  
525 West Allegan Street  
Lansing, MI 48933-2125

To ensure proper credit, all payments made pursuant to this Order must reference the McCoy Creek Industrial Park, and MDEQ Reference No. AOC-RD-11-003, and RD Account No. RD50028.

A copy of all correspondence that is sent to the Revenue Control Unit shall also be provided to the MDEQ Project Coordinator designated in Paragraph 14.1A(1), the Chief of the Compliance and Enforcement Section designated in Paragraph 14.1A(3), and the Assistant in Charge designated in Paragraph 14.1B.

B. As to the MDAG:

Assistant in Charge  
Environment, Natural Resources, and Agriculture Division  
Michigan Department of Attorney General  
G. Mennen Williams Building, 6<sup>th</sup> Floor  
525 West Ottawa Street  
Lansing, MI 48933  
Phone: 517-373-7540  
Fax: 517-373-1610

C. As to Ingersoll Rand:

David Sordi, P.E., C.E.M.  
Senior Manager, Environmental Engineering  
Corporate EHS  
The Ingersoll Rand Company  
P.O. Box 389  
Center Conway, NH 03813  
Phone: 603-447-3516  
E-mail Address: David\_Sordi@irco.com

14.2 Ingersoll Rand's Project Coordinator shall have primary responsibility for overseeing the performance of the response activities at the Facility and other requirements specified in this Order for Ingersoll Rand.

14.3 The MDEQ may designate other authorized representatives, employees, contractors, and consultants to observe and monitor the progress of any activity undertaken pursuant to this Order.

## **XV. SUBMISSIONS AND APPROVALS**

15.1 All Submissions required by this Order shall comply with all applicable laws and regulations and the requirements of this Order and shall be delivered to the MDEQ in accordance with the schedule set forth in this Order. All Submissions delivered to the MDEQ pursuant to this Order shall include a reference to the McCoy Creek Industrial Park and MDEQ Reference No. AOC-RD-11-003. All Submissions delivered to the MDEQ for approval shall also be marked "Draft" and shall include, in a prominent location in the document, the following disclaimer: *"Disclaimer: This document is a DRAFT document that has not received approval from the Michigan Department of Environmental Quality (MDEQ). This document was prepared pursuant to a governmental administrative order. The opinions, findings, and conclusions expressed are those of the authors and not those of the MDEQ."*

15.2 With the exception of the submission of a modified RAP Closure Report or new RAP, after receipt of any Submission relating to response activities that is required to be submitted for approval pursuant to this Order, the MDEQ District Supervisor will in writing: (a) approve the Submission; (b) approve the Submission with modifications; or (c) disapprove the Submission and notify Ingersoll Rand of the deficiencies in the Submission. Upon receipt of a notice of approval or approval with modifications from the MDEQ, Ingersoll Rand shall proceed to take the actions and perform the response activities required by the Submission, as approved or as modified, and shall submit a new cover page and any modified pages of the Submission marked "Approved."

15.3 Upon receipt of a notice of disapproval from the MDEQ pursuant to Paragraph 15.2(c), Ingersoll Rand shall correct the deficiencies and provide the revised Submission to the MDEQ for review and approval within thirty (30) days, unless the notice of disapproval specifies a longer time period for resubmission. Unless otherwise stated in the MDEQ's notice of disapproval, Ingersoll Rand shall proceed to take the actions and perform the response activities not directly related to the deficient portion of the Submission. Any stipulated penalties applicable to the delivery of the Submission shall accrue during the thirty (30)-day period or other time period specified for Ingersoll Rand to provide the revised Submission, but shall not be assessed unless the resubmission is also disapproved and the MDEQ demands payment of stipulated penalties pursuant to Section XVII, Stipulated Penalties, of this Order. The MDEQ will review the revised Submission in accordance with the procedure set forth in Paragraph 15.2. If the MDEQ disapproves a revised Submission, the MDEQ will so advise Ingersoll Rand and, as set forth above, stipulated penalties shall accrue from the date of the MDEQ's disapproval of the original Submission and continue to accrue until Ingersoll Rand delivers an approvable Submission.

15.4 The RRD Chief will make a decision regarding any modified RAP Closure Report or new RAP and will in writing: (a) approve the modified RAP Closure Report or new RAP; (b) reject the modified RAP Closure Report or new RAP as insufficient if it lacks any information necessary or required by the MDEQ to make a decision regarding approval of the modified RAP Closure Report or new RAP; or (c) deny approval of the modified RAP Closure Report or new RAP. Upon receipt of a notice of approval from the MDEQ, Ingersoll Rand shall proceed to take the actions and perform the response activities required by the MDEQ-approved modified RAP Closure Report or new RAP and shall submit a new cover page marked "Approved."

15.5 Within sixty (60) days of receipt of a rejection or denial of approval of a modified RAP Closure Report or new RAP from the MDEQ pursuant to Paragraph 15.4(b) or (c), Ingersoll Rand shall submit the revised modified RAP Closure Report or new RAP to the MDEQ for review and approval. The time period for resubmission may be extended by the MDEQ. If the MDEQ does not approve the modified RAP Closure Report or new RAP upon resubmission,

the MDEQ will so advise Ingersoll Rand. Any stipulated penalties applicable to the delivery of the modified RAP shall accrue during the sixty (60)-day period or other time period specified for Ingersoll Rand to submit another modified RAP Closure Report or new RAP, but shall not be assessed unless the revised modified RAP Closure Report or new RAP is also rejected or approval is denied and the MDEQ demands payment of stipulated penalties pursuant to Section XVII, Stipulated Penalties, of this Order. The MDEQ will review the revised modified RAP Closure Report or new RAP in accordance with the procedure stated in Paragraph 15.4. If the MDEQ rejects or denies the revised modified RAP Closure Report or new RAP, the MDEQ will so advise Ingersoll Rand and, as set forth above, stipulated penalties shall accrue from the date of the MDEQ's disapproval of the original modified RAP Closure Report or new RAP and continue to accrue until Ingersoll Rand delivers an approvable modified RAP Closure Report or new RAP.

15.6 If any initial Submission, including a modified RAP Closure Report or new RAP, contains significant deficiencies such that the Submission is not in the judgment of the MDEQ a good faith effort by Ingersoll Rand to deliver an acceptable Submission that complies with Part 201 and this Order, the MDEQ will notify Ingersoll Rand of such and will deem Ingersoll Rand to be in violation of this Order. Stipulated penalties, as set forth in Section XVII, Stipulated Penalties, of this Order, shall begin to accrue on the day after the Submission was due and continue to accrue until an approvable Submission is provided to the MDEQ.

15.7 Upon approval by the MDEQ, any Submission and attachments to Submissions required by this Order shall be considered part of this Order and are enforceable pursuant to the terms of this Order. If there is a conflict between the requirements of this Order and any Submission or an attachment to a Submission, the requirements of this Order shall prevail.

15.8 An approval or approval with modifications of a Submission shall not be construed to mean that the MDEQ concurs with any of the conclusions, methods, or statements in any Submission or warrants that the Submission comports with law.

15.9 Informal advice, guidance, suggestions, or comments by the MDEQ regarding any Submission provided by Ingersoll Rand shall not be construed as relieving Ingersoll Rand of its obligation to obtain any formal approval required under this Order.

## **XVI. REIMBURSEMENT OF COSTS**

16.1 Ingersoll Rand shall reimburse the State for all Future Response Activity Costs incurred by the State. Following the Effective Date of this agreement, the MDEQ will periodically provide Ingersoll Rand with a summary report (Summary Report) that identifies all Future Response Activity Costs incurred through the dates specified in the Summary Report. Any such demand will set forth, with reasonable specificity, the nature of the costs incurred. Except as provided by Section XVIII, Dispute Resolution, of this Order, Ingersoll Rand shall reimburse the MDEQ for such costs within thirty (30) days of Ingersoll Rand's receipt of a written demand from the MDEQ.

16.2 Ingersoll Rand shall have the right to request a full and complete accounting of all MDEQ demands made hereunder, including time sheets, travel vouchers, contracts, invoices, and payment vouchers as may be available to the MDEQ. The MDEQ's provision of these documents to Ingersoll Rand may result in the MDEQ incurring additional Future Response Activity Costs, which will be included in the annual demand for payment of Future Response Activity Costs.

16.3 All payments made pursuant to this Order shall be by certified check, made payable to the "State of Michigan – Environmental Response Fund," and shall be sent by first class mail to the Revenue Control Unit at the address listed in Paragraph 14.1A(4) of Section XIV, Project Coordinators and Communications/Notices, of this Order. The McCoy Creek Industrial Park, MDEQ Reference No. AOC-RD-11-003, and RD Account No. RD50028 shall be designated on each check. A copy of the transmittal letter and the check shall be provided simultaneously to the MDEQ Project Coordinator at the address listed in Paragraph 14.1A(1), the Chief of the Compliance and Enforcement Section, RRD, at the address listed in Paragraph 14.1A(3), and the Assistant in Charge at the address listed in

Paragraph 14.1B. Costs recovered pursuant to this Section and payment of stipulated penalties pursuant to Section XVII, Stipulated Penalties, shall be deposited into the Environmental Response Fund in accordance with the provisions of Section 20108(3) of the NREPA.

16.4 If Ingersoll Rand fails to make full payment to the MDEQ Future Response Activity Costs as specified in Paragraph 16.1, interest, at the rate specified in Section 20126a(3) of the NREPA, shall begin to accrue on the unpaid balance on the day after payment was due until the date upon which Ingersoll Rand makes full payment of those costs and the accrued interest to the MDEQ. In any challenge by Ingersoll Rand to an MDEQ demand for reimbursement of costs, Ingersoll Rand shall have the burden of establishing that the MDEQ did not lawfully incur those costs in accordance with Section 20126a(1)(a) of the NREPA.

## **XVII. STIPULATED PENALTIES**

17.1 Ingersoll Rand shall be liable for stipulated penalties in the amounts set forth in Paragraphs 17.2 and 17.3 for failure to comply with the requirements of this Order, unless excused under Section XII, *Force Majeure*, of this Order. "Failure to Comply" by Ingersoll Rand shall include failure to complete Submissions and notifications as required by this Order and, failure to perform response activities in accordance with the RAP Closure Report, this Order, and all applicable requirements of law and this Order within the specified implementation schedules established by or approved under this Order.

17.2 The following stipulated penalties shall accrue per violation per day for any violation of Section VIII, Performance of Response Activities, of this Order.

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$100.00	1 <sup>st</sup> through 14 <sup>th</sup> day
\$250.00	15 <sup>th</sup> through 30 <sup>th</sup> day
\$500.00	31 <sup>st</sup> day and beyond



17.3 Except as provided in Paragraph 17.2 and Section XII, *Force Majeure*, of this Order, and Section XVIII, Dispute Resolution, of this Order, if Ingersoll Rand fails or refuses to comply with any other term or condition of this Order, Ingersoll Rand shall pay the MDEQ stipulated penalties of one hundred dollars (\$100) a day for each and every failure or refusal to comply.

17.4 All penalties shall begin to accrue on the day after performance of an activity was due or the day a violation occurs, and shall continue to accrue through the final day of completion of performance of the activity or correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.

17.5 Except as provided in Section XVIII, Dispute Resolution, of this Order, Ingersoll Rand shall pay stipulated penalties owed to the State no later than thirty (30) days after Ingersoll Rand's receipt of a written demand from the State. Payment shall be made in the manner set forth in Paragraph 16.3 of Section XVI, Reimbursement of Costs, of this Order. Interest, at the rate provided for in Section 20126a(3) of the NREPA, shall begin to accrue on the unpaid balance at the end of the thirty (30)-day period on the day after payment was due until the date upon which Ingersoll Rand makes full payment of those stipulated penalties and the accrued interest to the MDEQ. Failure to pay the stipulated penalties within thirty (30) days after receipt of a written demand constitutes a further violation of the terms and conditions of this Order.

17.6 The payment of stipulated penalties shall not alter in any way Ingersoll Rand's obligation to perform the response activities required by this Order.

17.7 If Ingersoll Rand fails to pay stipulated penalties when due, the State may institute proceedings to collect the penalties, as well as any accrued interest. However, the assessment of stipulated penalties is not the State's exclusive remedy if Ingersoll Rand violates this Order. For any failure or refusal of Ingersoll Rand to comply with the requirements of this Order, the State also reserves the right to pursue any other remedies to which it is entitled under this Order or any applicable law including, but not limited to, seeking civil fines, injunctive relief, the specific performance of response activities, reimbursement of costs, exemplary damages pursuant to

Section 20119(4) of the NREPA in the amount of three (3) times the costs incurred by the State as a result of Ingersoll Rand's violation of or failure to comply with this Order.

17.8 Notwithstanding any other provision of this Section, the State may waive, in its unreviewable discretion, any portion of stipulated penalties and interest that has accrued pursuant to this Order.

## **XVIII. DISPUTE RESOLUTION**

18.1 Unless otherwise expressly provided for in this Order, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Order, except for Paragraphs 8.5(a) and (b), Voidance and Nullification of the MDEQ's Approval of a RAP Closure Report, of Section VIII, Performance of Response Activities, and Section XI, Emergency Response, which are not disputable. However, the procedures set forth in this Section shall not apply to actions by the State to enforce any of Ingersoll Rand's obligations that have not been disputed in accordance with this Section. Engagement of dispute resolution pursuant to this Section shall not be cause for Ingersoll Rand to delay the performance of any response activity required under this Order.

18.2 The State shall maintain an administrative record of any disputes initiated pursuant to this Section. The administrative record shall include the information Ingersoll Rand provides to the State under Paragraphs 18.3 through 18.5, and any documents the MDEQ and the State rely on to make the decisions set forth in Paragraphs 18.3 through 18.5.

18.3 Except for undisputable matters identified in Paragraph 18.1 and disputes related to the RAP Closure Report, which are addressed under Paragraph 18.4 of this Order, any dispute that arises under this Order with respect to the MDEQ's disapproval, modification, or other decision concerning requirements of this Order shall in the first instance be the subject of informal negotiations between the Project Coordinators representing the MDEQ and Ingersoll Rand. A dispute shall be considered to have arisen on the date that a Party to this Order receives a written Notice of Dispute from the other Party. The Notice of Dispute shall state the issues in

dispute; the relevant facts upon which the dispute is based; factual data, analysis, or opinion supporting the Party's position; and supporting documentation upon which the Party bases its position. In the event, Ingersoll Rand objects to any MDEQ notice of disapproval, modification, or decision concerning the requirements of this Order that is subject to dispute under this Section, Ingersoll Rand shall submit the Notice of Dispute within ten (10) days of receipt of the MDEQ's notice of disapproval, modification or decision. The period of informal negotiations shall not exceed ten (10) days from the date a Party receives a Notice of Dispute, unless the time period for negotiations is modified by written agreement between the Parties. If the Parties do not reach an agreement within ten (10) days or within the agreed-upon time period, the RRD District Supervisor will thereafter provide the MDEQ's Statement of Position, in writing, to Ingersoll Rand. In the absence of initiation of formal dispute resolution by Ingersoll Rand under Paragraph 18.4, the MDEQ's position as set forth in the MDEQ's Statement of Position shall be binding on the Parties.

18.4 If Ingersoll Rand and the MDEQ cannot informally resolve a dispute under Paragraph 18.3 or if the dispute involves the RAP Closure Report, Ingersoll Rand may initiate formal dispute resolution by submitting a written Request for Review to the RRD Chief, with a copy to the MDEQ Project Coordinator, requesting a review of the disputed issues. This Request for Review must be submitted within ten (10) days of Ingersoll Rand's receipt of the Statement of Position issued by the MDEQ pursuant to Paragraph 18.3. If the dispute is in regard to the RAP Closure Report, either Party may initiate formal dispute resolution by filing a Request for Review with the other Party. The Request for Review shall state the issues in dispute; the relevant facts upon which the dispute is based; factual data, analysis, or opinion supporting the Party's position; and supporting documentation upon which the Party bases its position. When the MDEQ issues a Request for Review, Ingersoll Rand will have twenty (20) days to submit a written rebuttal to the RRD Chief, with a copy to the MDEQ Project Coordinator. Within twenty (20) days of the RRD Chief's receipt of Ingersoll Rand's Request for Review or Ingersoll Rand's rebuttal, the RRD Chief will provide the MDEQ's Statement of Decision, in writing, to Ingersoll Rand, which will include a statement of his/her understanding of the issues in dispute; the relevant facts upon which the dispute is based; factual data, analysis, or opinion supporting his/her position; and supporting documentation he/she relied upon in making the decision. The

time period for the RRD Chief's review of the Request for Review may be extended by written agreement between the Parties. The MDEQ's Statement of Decision shall be binding on the Parties.

18.5 Notwithstanding the invocation of a dispute resolution proceeding, stipulated penalties shall accrue from the first day of Ingersoll Rand's failure or refusal to comply with any term or condition of this Order, but payment shall be stayed pending resolution of the dispute. In the event, and to the extent that Ingersoll Rand does not prevail on the disputed matters, the MDEQ may demand payment of stipulated penalties and Ingersoll Rand shall pay stipulated penalties as set forth in Paragraph 17.5 of Section XVII, Stipulated Penalties, of this Order. Ingersoll Rand shall not be assessed stipulated penalties for disputes that are resolved in its favor. The MDAG, on behalf of the MDEQ, may take civil enforcement action against Ingersoll Rand to seek the assessment of civil penalties or damages pursuant to Sections 20119(4) and 20137(1) of the NREPA or other statutory and equitable authorities.

18.6 Notwithstanding the provisions of this Section and in accordance with Section XVI, Reimbursement of Costs, and Section XVII, Stipulated Penalties, of this Order, Ingersoll Rand shall pay to the MDEQ that portion of a demand for reimbursement of costs or for payment of stipulated penalties that is not the subject of an ongoing dispute resolution proceeding.

18.7 As provided for in Section 20137(6) of the NREPA, no action or decision of the MDEQ or the MDAG shall constitute a final agency action giving rise to any rights of judicial review prior to the MDAG's initiation of judicial action to compel Ingersoll Rand to comply with this Order or to enforce a term, condition, or other action required by this Order. Nothing in this Order shall expand Ingersoll Rand's ability to obtain pre-enforcement review of this Order.

## **XIX. INDEMNIFICATION AND INSURANCE**

19.1 The State of Michigan does not assume any liability by entering into this Order. This Order shall not be construed to be an indemnity by the State for the benefit of Ingersoll Rand or any other person.

19.2 Ingersoll Rand shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, agents, employees, contractors, and representatives for any claims or causes of action that arise from, or on account of, acts or omissions of Ingersoll Rand, their officers, employees, agents, or any other person acting on their behalf or under their control, in performing the activities required by this Order.

19.3 Ingersoll Rand shall indemnify and hold harmless the State and its departments, agencies, officials, agents, employees, contractors, and representatives for all claims or causes of action for damages or reimbursement from the State that arise from, or on account of, any contract, agreement, or arrangement between Ingersoll Rand and any person for the performance of response activities at the Facility, including any claims on account of construction delays.

19.4 The State shall provide Ingersoll Rand notice of any claim for which the State intends to seek indemnification pursuant to Paragraphs 19.2 or 19.3.

19.5 Neither the State of Michigan nor any of its departments, agencies, officials, agents, employees, contractors, or representatives shall be held out as a party to any contract that is entered into by or on behalf of Ingersoll Rand for the performance of activities required by this Order. Neither Ingersoll Rand nor any contractor shall be considered an agent of the State.

19.6 Ingersoll Rand waives all claims or causes of action against the State of Michigan and its departments, agencies, officials, agents, employees, contractors, and representatives for damages, reimbursement, or set-off of any payments made or to be made to the State that arise from, or on account of, any contract, agreement, or arrangement between Ingersoll Rand and any

other person for the performance of response activities at the Facility, including any claims on account of construction delays.

19.7 Prior to commencing any response activities pursuant to this Order and for the duration of this Order, Ingersoll Rand shall secure and maintain comprehensive general liability insurance with limits of one million dollars (\$1,000,000) combined single limit, which names the MDEQ, the MDAG, and the State of Michigan as additional insured parties. If Ingersoll Rand demonstrates by evidence satisfactory to the MDEQ that any contractor or subcontractor maintains insurance equivalent to that described above, then with respect to that contractor or subcontractor, Ingersoll Rand needs to provide only that portion, if any, of the insurance described above that is not maintained by the contractor or subcontractor. Regardless of the insurance method used by Ingersoll Rand, and prior to commencement of response activities pursuant to this Order, Ingersoll Rand shall provide the MDEQ Project Coordinator and the MDAG with certificates evidencing said insurance and the MDEQ, the MDAG, and the State of Michigan's status as additional insured parties. Such certificates shall specify the McCoy Creek Industrial Park, the MDEQ Reference No. AOC-RD-11-003, and the Remediation and Redevelopment Division. In addition, and for the duration of this Order, Ingersoll Rand shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of Workers' Disability Compensation Insurance for all persons performing response activities on behalf of Ingersoll Rand in furtherance of this Order.

## **XX. COVENANTS NOT TO SUE BY THE STATE**

20.1 In consideration of the actions that have been and will be performed at the Facility and the payments that have been and will be made by Ingersoll Rand under the terms of the 1996 Order and this Order, and except as specifically provided for in this Section and Section XXI, Reservation of Rights by the State, of this Order, the State of Michigan hereby covenants not to sue or to take further administrative action against Ingersoll Rand for:

(a) The performance of MDEQ-approved response activities that Clark and/or Ingersoll Rand have performed as of the Effective Date of this Order.

(b) The performance of MDEQ-approved response activities that Ingersoll Rand performs pursuant to this Order;

(c) Reimbursement of Response Activity Costs that were incurred and paid by the State that were reimbursed by Clark or Ingersoll Rand pursuant to the 1996 Order.

(d) Reimbursement by Ingersoll Rand of Future Response Activity Costs that are incurred and paid by the State as set forth in Paragraphs 16.1 and 16.4 of Section XVI, Reimbursement of Costs, of this Order.

20.2 The covenants not to sue shall take effect under this Order as follows:

(a) With respect to Ingersoll Rand's liability for response activities performed as of the Effective Date of this Order, the covenant not to sue shall take effect upon the Effective Date of this Order.

(b) With respect to Ingersoll Rand's liability for response activities performed pursuant to this Order, the covenant not to sue is effective so long as Ingersoll Rand is meeting the performance standards that are included in the RAP Closure Report.

(c) With respect to Ingersoll Rand's liability for Response Activity Costs incurred and paid by the State that were reimbursed by Clark or Ingersoll Rand pursuant to the 1996 Order, the covenants not to sue shall take effect upon the Effective Date of this Order.

(d) With respect to Ingersoll Rand's liability for Future Response Activity Costs incurred and paid by the State, the covenants not to sue shall take effect upon the MDEQ's receipt of payments for those costs, including any applicable interest that has accrued pursuant to Paragraph 16.4 of this Order.

20.3 The covenants not to sue extend only to Ingersoll Rand and do not extend to any other person.

## **XXI. RESERVATION OF RIGHTS BY THE STATE**

21.1 The covenants not to sue apply only to those matters specified in Paragraph 20.1 of Section XX, Covenants Not to Sue by the State, of this Order. The State expressly reserves, and this Order is without prejudice to, all rights to take administrative action or to file a new

action pursuant to any applicable authority against Clark or Ingersoll Rand with respect to the following:

- (a) The performance of response activities that are required to comply with Part 201 and to achieve and maintain the performance objectives specified in Paragraph 8.1 of Section VIII, Performance of Response Activities, of this Order.
- (b) Future response activity costs that Ingersoll Rand has not paid.
- (c) The past, present, or future treatment, handling, disposal, release, or threat of release of hazardous substances that occur outside of the Facility and that are not attributable to the Facility.
- (d) The past, present, or future treatment, handling, disposal, release, or threat of release of hazardous substances taken from the Facility.
- (e) Damages for injury to, destruction of, or loss of natural resources, and the costs for any natural resource damage assessment.
- (f) Criminal acts.
- (g) Any matters for which the State is owed indemnification under Section XIX, Indemnification and Insurance, of this Order.
- (h) The release or threatened release of hazardous substances that occur during or after the performance of response activities required by this Order or any other violations of state or federal law for which Ingersoll Rand has not received a covenant not to sue.

21.2 The State reserves the right to take action against Ingersoll Rand if it discovers at any time that any material information provided by Ingersoll Rand prior to or after entry of this Order was false or misleading.

21.3 The MDEQ and the MDAG expressly reserve all of their rights and defenses pursuant to any available legal authority to enforce this Order.

21.4 In addition to, and not as a limitation of any other provision of this Order, the MDEQ retains all of its authority and reserves all of its rights to perform, or contract to have performed, any response activities that the MDEQ determines are necessary.



21.5 In addition to, and not as a limitation of any provision of this Order, the MDEQ and the MDAG retain all of their information-gathering, inspection, access, and enforcement authorities and rights under Part 201 and any other applicable statute or regulation.

21.6 Failure by the MDEQ or the MDAG to enforce any term, condition, or requirement of this Order in a timely manner shall not:

- (a) Provide or be construed to provide a defense for Ingersoll Rand's noncompliance with any such term, condition, or requirement of this Order.
- (b) Estop or limit the authority of the MDEQ or the MDAG to enforce any such term, condition, or requirement of the Order, or to seek any other remedy provided by law.

21.7 This Order does not constitute a warranty or representation of any kind by the MDEQ that the response activities performed by Ingersoll Rand in accordance with the RAP Closure Report will result in the achievement of the performance objectives stated in Paragraph 8.1 of Section VIII, Performance of Response Activities, of this Order, or the remedial criteria established by law; or that those response activities will assure protection of public health, safety, or welfare, or the environment.

21.8 Except as provided in Paragraph 20.1(a) and (b) of Section XX, Covenants Not to Sue by the State, of this Order, nothing in this Order shall limit the power and authority of the MDEQ or the State of Michigan, pursuant to Section 20132(8) of the NREPA, to direct or order all appropriate action to protect the public health, safety, or welfare, or the environment; or to prevent, abate, or minimize a release or threatened release of hazardous substances, pollutants, or contaminants on, at, or from the Facility.

## **XXII. COVENANT NOT TO SUE BY INGERSOLL RAND**

22.1 Ingersoll Rand hereby covenants not to sue or to take any civil, judicial, or administrative action against the State, its agencies, or their authorized representatives, for any claims or causes of action against the State that arise from this Order, including, but not limited

to, any direct or indirect claim for reimbursement from the Cleanup and Redevelopment Fund pursuant to Section 20119(5) of the NREPA or any other provision of law.

22.2 After the Effective Date of this Order, if the MDAG initiates any administrative or judicial proceeding for injunctive relief, recovery of response activity costs, or other appropriate relief relating to the Facility, Ingersoll Rand agrees not to assert and shall not maintain any defenses or claims that are based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, or claim-splitting, or that are based upon a defense that contends any claims raised by the MDEQ or the MDAG in such a proceeding were or should have been brought in this case; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in Section XX, Covenants Not to Sue by the State, of this Order.

### **XXIII. CONTRIBUTION**

Pursuant to Section 20129(5) of the NREPA and Section 113(f)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act, 1980 PL 96-510, as amended (CERCLA), 42 USC Section 9613(f)(2); and to the extent provided in Section XX, Covenants Not to Sue by the State, of this Order, Ingersoll Rand shall not be liable for claims for contribution for the matters set forth in Paragraph 20.1 of Section XX, Covenants Not to Sue by the State, of this Order, to the extent allowable by law. The Parties agree that entry of this Order constitutes an administratively approved settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 USC 9613(f)(3)(B), pursuant to which Ingersoll Rand has, as of the Effective Date, resolved its liability to the MDEQ for the matters set forth in Paragraph 20.1 of this Order. Entry of this Order does not discharge the liability of any other person that may be liable under Section 20126 of the NREPA, or Sections 9607 and 9613 of the CERCLA. Pursuant to Section 20129(9) of the NREPA, any action by Ingersoll Rand for contribution from any person that is not a Party to this Order shall be subordinate to the rights of the State of Michigan if the State files an action pursuant to the NREPA or other applicable state or federal law.

#### **XXIV. MODIFICATIONS**

24.1 The Parties may only modify this Order according to the terms of this Section. The modification of any Submission or schedule required by this Order, excluding a RAP, may be made only upon written approval from the MDEQ Project Coordinator. Any modifications to the RAP Closure Report must be approved in writing by the RRD Chief or his or her authorized representative.

24.2 Modification of any other provision of this Order shall be made only by written agreement between Ingersoll Rand's Project Coordinator, the RRD Chief, or his or her authorized representative, and the designated representative of the MDAG.

#### **XXV. SEPARATE DOCUMENTS**

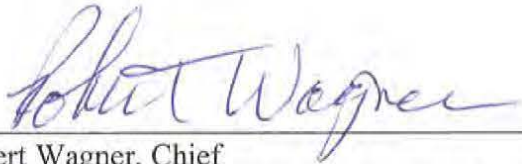
The Parties may execute this Order in duplicate original form for the primary purpose of obtaining multiple signatures, each of which shall be deemed an original, but all of which together shall constitute the same instrument.

#### **XXVI. SEVERABILITY**

26.1 The provisions of this Order shall be severable. If a court of competent jurisdiction declares that any provision of this Order is inconsistent with state or federal law and therefore unenforceable, the remaining provisions of this Order shall remain in full force and effect.

26.2 If the MDEQ's approval of the RAP Closure Report becomes void or nullified, all other terms of this Order remain in full force and effect.

IT IS SO AGREED TO AND ORDERED BY:



Robert Wagner, Chief  
Remediation and Redevelopment Division  
Michigan Department of Environmental Quality

2/26/13

Date



Richard S. Kuhl (P42042)  
Assistant Attorney General  
Environment, Natural Resources, and Agriculture Division  
Michigan Department of Attorney General

2/26/13

Date

IT IS SO AGREED BY:

  
Robert L. Bobby Katz  
General Counsel  
Ingersoll Rand Company

2/4/13  
Date

ATTACHMENT A  
LEGAL DESCRIPTIONS OF PROPERTY

**Property Description – City Hall Parcel**

Property Tax ID Number 11-58-0700-0010-00-1.

Lot 10, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan.

**Property Description City of Buchanan-- North Parcel**

Property Tax ID Number 11-58-0700-0008-01-4.

Part of Lot 8, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan; Beginning at the Southeast corner of Lot 8; thence South 64°30'53" West along the North right-of-way line of Third Street 137.26 feet; thence North 29°37'00" West 75.92 feet; thence North 67°19'03" East along the North line of said Lot 8 144.33 feet; thence South 22°40'57" East along the East line of said Lot 8 52.73 feet to place of beginning.



**Property Description – City Of Buchanan, Recreational Use Parcel**

**PART OF LOT 2:**

That part of Lot 2, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as: Commencing at the southwest corner of said Lot 2, said point being the Northeasterly corner of the intersection of Red Bud Trail and Front Street, for THE PLACE OF BEGINNING OF THIS DESCRIPTION, thence North 00°24'00" East 130.50 feet along the Easterly line of Red Bud Trail; thence North 82°30'00" East 140.00 feet; thence South 00°26'38" West 140.39 feet to the Northerly line of Front Street; thence South 86°31'00" West 138.95 feet along said Northerly line to the place of beginning.

**Dewey Street:**

That part of Lot 2, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as:

Commencing at the Northeast corner of Clark Park, Assessor's Plat No. 1 to the City of Buchanan, thence North 00°01'42" West 65.99 feet to the South line of Lot 1; thence along the South line of Lot 1 North 89°58'18" East 34.26 feet; thence along the East line of Lot 1 North 18°50'00" West 46.35 feet; thence North 18°50'00" West 46.35 feet; thence North 12°57'33" West 68.71 feet; thence North 10°40'18" West 48.19 feet; thence North 04°05'01" West 54.02 feet; thence North 22°16'47" West 15.65 feet; thence North 68°51'53" East 39.95 feet; thence South 18°50'00" East 300.64 feet; thence South 70°18'03" West 66.42 feet; thence South 89°58'18" West 56.92 feet to the place of beginning.

**Creek Recreational Area:**

That part of Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as: Commencing at the South 1/4 corner of said Section 25; thence North 00°10'00" West 333.00 feet; thence North 89°50'00" West 100.00 feet; thence South 00°10'00" East 300.00 feet; thence North 89°50'00" West 104.60 feet; thence North 00°10'00" West 300.00 feet; thence North 89°50'00" West 2221.99 feet; thence North 00°10'00" East at right angles to the last described line 388.42 feet to THE PLACE OF

BEGINNING OF THIS DESCRIPTION; thence North 04°49'02" East 16.85 feet to the Southeast corner of Lot 10 and the Northerly line of Third Street; thence along said Northerly line the following nine (9) courses and distances:

North 05°01'17" East 81.61 feet;

North 21°57'14" East 88.79 feet to a point which is on the Southeasterly line of Lot 9;

North 47°54'16" East 232.11 feet to a point which is on the Southeasterly line of Lot 7;

North 68°46'32" East 412.72 feet to a point which is on the Southeasterly line of Lot 8;

North 64°34'44" East 546.42 feet to a point which is on the Southeasterly line of Lot 7;

North 80°06'34" East 258.95 feet;

North 33°24'13" East 109.50 feet;

South 21°26'00" East 126.00 feet to the Northwesterly corner of Lot 6;

South 21°26'00" East 130.75 feet along the Westerly line of Lot 6;

thence South 89°28'59" West 228.68 feet; thence Westerly 171.24 feet along a 795.00 foot radius curve to the left, the chord of which bears South 83°18'44" West 170.91 feet; thence South 77°08'2" West 118.39 feet; thence Westerly 124.48 feet along a 490.00 foot radius curve to the left, the chord of which bears South 69°51'47" West 124.15 feet; thence South 62°35'06" West 119.59 feet; thence Westerly 149.08 feet along an 825.00 foot radius curve to the right, the chord of which bears South 67°45'43" West 148.88 feet; thence South 72°56'20" West 111.28 feet; thence Southwesterly 219.1 feet along a 690.00 foot radius curve to the left, the chord of which bears South 63°50'43" West 218.10 feet; thence South 54°45'07" West 155.16 feet; thence Southwesterly 218.09 feet along a 490.00 foot radius curve to the left, the chord of which bears South 42°00'05" West 216.29 feet; thence Southwesterly 66.59 feet along a 70.00 foot radius curve to the right, the chord of which bears South 56°30'11" West 64.11 feet to the place of beginning.

**Property Description – City of Buchanan, Southern Parcel**

Property Tax ID Number 11-58-0700-003-02-1

**Lot 3:**

Part of Lot 3, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, described as: Commencing at the most westerly corner of Lot 3, thence along the East right-of-way line of Third Street North 30°00'00" East 148.00 feet; thence continuing along said right-of-way line North 54°51'47" East 20.39 feet to THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence North 54°51'47" East 358.10 feet along said right-of-way line; thence North 73°17'05" East 306.19 feet along said right-of-way line; thence North 59°08'36" East 232.45 feet along said right-of-way line; thence South 04°20'10" East 151.08 feet; thence South 25°28'10" East 84.18 feet; thence South 18°40'00" East 339.90 feet; thence South 00°10'00" West 81.22 feet; thence North 89°57'42" West 175.71 feet; thence South 59°05'18" West 456.40 feet; thence North 28°35'16" West 142.77 feet; thence South 80°06'06" West 299.78 feet to a point on the easterly right-of-way line of Dewey Street; thence North 18°50'00" West 184.30 feet along said easterly right-of-way line; thence continuing North 18°50'00" West 78.62 feet along said right-of-way; thence North 30°00'00" East 148.00 feet along said right-of-way; thence North 54°51'41" East 20.39 feet along said right of way to the place of beginning.

**Tract 2:**

That part of Lot 3, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as:

Commencing at the southwest corner of Lot 2, said point being the intersection of the North line of Front Street and the East line of Red Bud Trail North, thence North 86°31'00" East 231.38 feet along the North line of Front Street; thence North 10°06'54" West 215.58 feet; thence North 45°30'40" East 70.76 feet; thence North 25°00'00" West 80.00 feet to the Southerly line of Dewey Street; thence North 89°51'18" East 56.92 feet along said southerly line; thence North 70°18'03" East 66.42 Feet along said southerly line to THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence North 18°50'00" West 38.33 feet; thence North 80°12'01" East 299.78 feet; thence South 28°29'21" East 142.77 feet; thence southwesterly 270.14 feet along a 580.80 foot radius curve to the right, said curve having a chord bearing South 19°45'37" West 267.71 feet; thence North 89°53'55" West 59.81 feet; thence North 09°56'58" West 349.63 feet; thence South 90°00'00" West 105.50 feet to the place of beginning of this description.

**Property Description – Jack-Post Parcel**

Property Tax ID Number 11-58-0700-0004-00-1

LOT 4, "ASSESSOR'S PLAT NO. 1 TO THE CITY OF BUCHANAN", BEING A SUBDIVISION IN THE SOUTHWEST QUARTER OF SECTION 25, TOWNSHIP 7 SOUTH, RANGE 18 WEST, CITY OF BUCHANAN, BERRIEN COUNTY, MICHIGAN.

ALSO THE RIGHTS OF AN INGRESS AND EGRESS EASEMENT ON A PART OF LOT 3, SAID "ASSESSOR'S PLAT NO. 1 TO THE CITY OF BUCHANAN" DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SAID LOT 3; THENCE NORTH 89° 50' WEST ON THE SOUTH LINE OF SAID LOT 3, A DISTANCE OF 100.00 FEET; THENCE NORTH 0° 10' EAST 49.15 FEET; THENCE NORTH 71° 20' EAST 105.66 FEET TO THE EAST LINE OF SAID LOT 3; THENCE SOUTH 0° 10' WEST ON SAID EAST LINE 83.26 FEET TO THE POINT OF BEGINNING. ALSO COMMENCING AT THE NORTHEAST CORNER OF SAID LOT 3; THENCE SOUTH 4° 20' 10" EAST ON THE EAST LINE OF SAID LOT 3, A DISTANCE OF 151.08 FEET; THENCE SOUTH 25° 28' 10" EAST ON SAID EAST LOT LINE 84.18 FEET; THENCE SOUTH 71° 40' WEST 100.00 FEET; THENCE NORTH 18° 40' WEST 85.13 FEET; THENCE NORTH 21° 58' 21" EAST 85.18 FEET; THENCE NORTH 30° 51' 24" WEST 62.63 FEET TO THE NORTH LINE OF SAID LOT 3; THENCE NORTH 59° 08' 36" EAST ON SAID NORTH LINE 87.14 FEET TO THE POINT OF BEGINNING.

**Property Description – Denny's Automotive Parcel**

Property Tax ID Numbers: 11-58-0700-0009-01-1 and 11-58-0700-0009-02-9.

**Parcel No. 1**

Part of Lot 9, Assesor's Plat No. 1, according to the plat thereof, recorded December 19, 1983, in Volume 24 of Plats, page 2, described as follows:

Commencing at the Northwest corner of said Lot 9; thence South along the East right of way of Red Bud Trail North 128 feet; thence East 125 feet; thence North 128 feet; thence West 125 feet to the point of beginning.

**Parcel No.2**

Lot 9, ASSESSOR'S PLAT NO. 1 TO THE CITY OF BUCHANAN, being subdivision in the Southwest Quarter of Section 25, Township 7 South, Range 18 West, City of Buchanan, Berrien County, Michigan, according to the Plat thereof, recorded December 19, 1983 at Liber 24, page 2. Excepting Commencing at the Northwest corner of said Lot 9; thence South 128.00 feet; thence East 125.00 feet; thence North 128.00 feet; thence West 125.00 feet to place of beginning.

**Property Description – Former Golden Farm Candles Property**

Property Tax ID Number 11-58-0700-0001-00-1

Lot 1, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan.

**Property Description Buchanan Industries – North Parcel**

Property Tax ID Number 11-58-0025-0019-02-5.

Lots 15 and 16, Block 14, ENGLISH AND HOLMES ADDITION TO VILLAGE OF BUCHANAN, according to the plat thereof, recorded March 4, 1895, in Volume 3 of Plats, page 41, and Lot 16, STRYKER'S ADDITION TO THE VILLAGE OF BUCHANAN, according to the plat thereof, recorded May 10, 1917, in Volume 5 of Plats, page 56, and that part of the West Half of Section 25, Township 7 South, Range 18 West, all described as follows: Commencing at the West Quarter corner of said Section 25, thence South 89° 31' East along the South line of said plat of English and Holmes Addition to Village of Buchanan, 781.55 feet to the Easterly line of said plat of Stryker's Addition to the Village of Buchanan, and said line extended to the true place of beginning of the parcel of land herein described, thence South 0° 34' 40" West on the Easterly line of said plat of Stryker's Addition to the Village of Buchanan, 766.21 feet (deed South 0° 32' West 766.60 feet) to the Northeast corner of Lot 16, said plat of Stryker's Addition to the Village of Buchanan, thence North 89° 31' West 60.0 feet to the Northwest corner of said Lot 15, thence South 1° 03' 30" East along the Westerly line of said Lot 16, 133.0 feet to the Northerly line of River Street as relocated, thence North 64° 40' East 62.5 feet, thence North 59° 56' East all along the said Northerly line 653.30 feet, thence North 0° 27' 54" East 530.17 feet to the South line of said plat of English and Holmes Addition to Village of Buchanan, thence North 89° 31' West along said South line 408.83 feet to the Southeast corner of Lot 15, Block 14, said plat of English and Holmes Addition to Village of Buchanan, thence North 0° 03' 54" East on the East line of said Lot 15, 131.75 feet (deed North 0° 23' East 132.24 feet) to the Northeast corner of said Lot 15, thence North 89° 32' West on the North line of Lots 15 and 16, said plat of English and Holmes Addition to Village of Buchanan, said line also the South line of Fulton Street 131.56 feet (deed 132.0 feet) to the Northwest corner of said Lot 16, thence South 0° 3' 54" West on the West line of said Lot 16, 131.73 feet (deed South 0° 28' West 132.20 feet) to the South line of said plat of English and Holmes Addition to Village of Buchanan, thence North 89° 31' West 14.8 feet to the point of beginning.

Property Description Buchanan Industries - South Parcel

PART OF SECTION 25, TOWN 7 SOUTH, RANGE 18 WEST  
CITY OF BUCHANAN, COUNTY OF BERRIEN, AND STATE OF MICHIGAN.

LOT 7, ASSESSOR'S PLAT NO. 1 TO THE CITY OF BUCHANAN, ACCORDING TO THE PLAT THEREOF,  
RECORDED DECEMBER 18, 1983, IN VOLUME 24 OF PLATS, PAGE 2:

EXCEPTING THEREFROM COMMENCING AT THE NORTHWESTERLY MOST CORNER OF LOT 7 THENCE N69°35'E  
ON THE SOUTHERLY LINE OF RIVER STREET, 306.10 FEET, THENCE CONTINUING ON SAID SOUTHERLY LINE  
OF RIVER STREET, NORTH 85°22'E 4.0 FEET, THENCE S19°41'04"E 127.86 FEET, THENCE S70°15'59"W,  
64.18 FEET, THENCE S19°06'36"E 112.87 FEET, THENCE S70°15'58"W 41.59 FEET, THENCE S18°37'25"E  
150.35 FEET TO THE SOUTHERLY LINE OF SAID LOT 7, THENCE SOUTHWESTERLY 123.12 FEET ON A  
442.28 FOOT RADIUS CURVE TO THE LEFT WHOSE CHORD BEARS S27°30'39"W 122.73 FEET, THENCE  
CONTINUING ON SAID SOUTHERLY LINE S56°47'38"W 205.12 FEET, THENCE CONTINUING ON SAID  
SOUTHERLY LINE S47°53'16"W 61.55 FEET TO THE WESTERLY LINE OF SAID LOT 7, THENCE N0°22'52"W  
271.72 FEET, THENCE N18°21'W 50.0 FEET, THENCE N89°41'E 53.65 FEET, THENCE N19°07'W ALL ON SAID  
WESTERLY LOT LINE 191.99 FEET TO THE POINT OF BEGINNING.

Property Tax ID Number: 11-58-0700-02-6



**Property Description General Machine – North Parcel**

Part of Section 25, Township 7 South, Range 18 West, described as: Commencing at a point on the East and West Quarter line of said Section 25, said Quarter line also being the South line of Block 14, recorded plat of English and Holmes Addition to the Village of Buchanan, recorded March 4, 1895, in Volume 3 of Plats, page 41, 1336.75 feet South 89° 58' 54" East of the West Quarter corner of said Section 25, thence continuing South 89° 50' 54" East on said East and West Quarter line 241.92 feet, thence South 22° 04' 02" East 329.82 feet to the North line or River Street, thence South 58° 28' 16" West 429.19 feet, thence North 530.17 feet to the point of beginning.

**Property Description General Machine – South Parcel**

Property Tax ID Numbers: 11-58-0700-0007-01-8 and 11-58-0700-0008-02-2.

**PARCEL NO. 1:**

Part of Lot 7, ASSESSOR'S PLAT NO. 1 TO THE CITY OF BUCHANAN, according to the plat thereof, recorded December 19, 1983, in Volume 24 of Plats, page 2, described as follows: Commencing at the Northwestern most corner of said Lot 7, thence North 69° 25' East, on the Southerly line of River Street, 306.10 feet, thence continuing on said Southerly line of River Street, North 65° 32' East 4.0 feet, thence South 19° 41' 04" East 127.86 feet, thence South 70° 15' 58" West 64.18 feet, thence South 19° 6' 36" East 112.87 feet, thence South 70° 15' 58" West 41.58 feet, thence South 18° 37' 25" East 150.85 feet, to the Southerly line of said Lot 7, thence Southwesterly 123.12 feet on a 442.28 foot radius curve to the left whose chord bears South 27° 30' 39" West 122.73 feet, thence continuing on said Southerly line, South 68° 47' 38" West 205.12 feet, thence continuing on said Southerly line South 47° 53' 16" West 61.55 feet to the Westerly line of said Lot 7, thence North 0° 22' 52" West 271.72 feet, thence North 18° 21' West 50.0 feet, thence North 69° 41' East 58.65 feet, thence North 19° 07' West, all on said Westerly lot line, 191.98 feet to the point of beginning.

**PARCEL NO. 2:**

Lot 8, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the South West Quarter of Section 25, T7S, R18W, City of Buchanan, Berrien County, Michigan, Except: Commencing at the Northerly most point of said lot 8, thence Southeasterly on the lot line 167.37' to the point of beginning, thence Northeasterly on the lot line 144.33', thence Southeasterly on the lot line 52.73', thence Southwesterly on the lot line 144.33', thence Northwesterly to the point of beginning.

**Property Description – K Barker Enterprises, L.L.C. Parcel**

Property Tax Number 11-58-0700-0002-01-6

LAND SITUATED IN THE CITY OF BUCHANAN, COUNTY OF BERRIEN, STATE OF MICHIGAN AND DESCRIBED AS FOLLOWS:

**PART OF LOT 2:**

That part of Lot 2, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as:

Commencing at the southwest corner of said Lot 2, said point being the intersection of the North line of Front Street and the East line of Red Bud Trail North, thence North 86°31'00" East 231.38 feet along the North line of Front Street to THE PLACE OF BEGINNING OF THIS DESCRIPTION thence North 10°06'54" West 215.58 feet; thence North 45°30'40" East 70.76 feet; thence North 25°00'00" West 80.00 feet to the Southerly line of Dewey Street; thence North 89°51'18" East 56.92 feet along said southerly line; thence North 70°18'03" East 66.42 Feet along said southerly line thence North 90°00'00" East 105.50 feet; thence South 09°56'58" East 349.63 feet to the Northerly line of Front Street; thence North 89°50'00" West 241.30 feet along said Northerly line; thence South 00°24'00" West 11.00 feet along said northerly line; thence South 86°31'00" West 22.25 feet to the place of beginning of this description.

**TRACT 1:**

That part of Lot 2, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as:

Commencing at the southwest corner of said Lot 2, said point being the intersection of the North line of Front Street and the East line of Red Bud Trail North, thence North 86°31'00" East 138.95 feet along the North line of Front Street to THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence North 00°26'38" East 140.39 feet to the North line of said Lot 2; thence North 45°30'40" East 113.57 feet along said North line; thence South 10°06'29" East 216.02 feet to the North line of Front Street; thence South 86°31'00" West 120.24 feet along said North line to the place of beginning.

**Property Description -Buchanan DDA, Recreational Use Parcel**

**CLARK PARK:**

That part of Clark Park, Assessor's Plat No. 1 to the City of Buchanan, being a subdivision in the Southwest Quarter of Section 25, Township 7 North, Range 18 West, City of Buchanan, Berrien County, Michigan, recorded in Liber 24, Page 2, Berrien County Records, described as: Commencing at the southwest corner of Lot 2 of said Assessor's Plat, said point being the Northeasterly corner of the intersection of Red Bud Trail and Front Street, thence North 00°24'00" East 130.50 feet along the Easterly line of Red Bud Trail to THE PLACE OF BEGINNING OF THIS DESCRIPTION; thence continuing North 00°24'00" East 220.00 feet along said Easterly line to the Southerly line of Dewey Street; thence South 90°00'00" East 235.00 feet along said Southerly line; thence South 25°00'00" East 80.00 feet; thence South 45°30'40" West 184.39 feet; thence South 82°30'00" West 140.00 feet to the place of beginning.

Property Description - Clark Parcel

Property Tax ID Number 11-58-0700-0006-02-0.

**DESCRIPTION: PARCEL LOT 6-B**

**THAT PART OF LOG 6, ASSESSOR'S PLAT NO. 1**

LAND SITUATED IN THE CITY OF BUCHANAN, COUNTY OF BERRIEN, STATE OF MICHIGAN AND IS DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST NORTHERLY CORNER OF LOT 6, ASSESSOR'S PLAT NO. 1 TO THE CITY OF BUCHANAN THENCE S. 00° 05' 28" E., 271.70 FEET; THENCE, ALL ALONG AN EXISTING FENCE S. 89° 53' 12" W., 323.37 FEET AND N. 89° 58' 04" W., 95.69 FEET AND S. 47° 30' 13" W., 300.61 FEET; THENCE AROUND A 181.44 RADIUS CURVE TO THE RIGHT 183.47 FEET, THE CHORD OF SAID CURVE BEING S. 28° 47' 05" E., 175.75 FEET; THENCE S. 00° 07' 43" W., 63.64 FEET TO THE SOUTHERLY LINE OF SAID LOT 6; THENCE N. 67° 14' 56" W. ALONG SAID SOUTHERLY LINE 22.50 FEET; THENCE AROUND A 338.50 FOOT RADIUS CURVE TO THE LEFT 270.89 FEET, THE CHORD OF SAID CURVE BEING N. 43° 09' 28" W., 263.72 FEET; THENCE N. 20° 42' 07" E., 170.50 FEET (PREVIOUSLY DESCRIBED AS N. 21° 26' W.); THENCE N. 54° 09' 28" E., 504.95 FEET; THENCE N. 84° 56' 55" E., 409.46 FEET TO THE POINT OF BEGINNING, CONTAINING 4.82 ACRES MORE OR LESS.

ATTACHMENT B  
PERFORMANCE STANDARDS

applicable groundwater surface water interface ("GSI") criteria, which may include site-specific mixing zone based GSI criteria.

### **3.4 REMEDIAL ACTIVITIES TO ADDRESS EXPOSURE PATHWAYS**

Remedial activities implemented at the MCIP are intended to mitigate the risks identified in Section 2.5. As noted in Section 2.5, identification of the risks that required mitigation was based on evaluation of the site characterization database against generic criteria selected to assure that the MCIP will be remediated to support all current and reasonably foreseeable future uses. Definition of current and reasonably foreseeable future land use was established based on extensive discussion with the City of Buchanan and other private owner/operators within the MCIP. Based on these discussions, the MCIP was segregated into three distinct areas: North Creek Area, South Creek Area, and Recreational Area. The completed remedial activities have been done to support the following limited closures in these areas: a Limited Industrial and Commercial II closure of the North Creek Area; a limited Industrial and Commercial II, III, and IV in the South Creek Area; and a site-specific recreational closure of the greenbelt area along McCoy Creek.

Based on the results of the risk assessment, and Clark's obligations under Section 20118, the following remedial actions have been completed to meet the site closure objectives described above.

#### **3.4.1 REMEDIAL ACTIONS TO ASSURE THAT LAND USE IS MAINTAINED CONSISTENT WITH ALLOWABLE USES**

Restrictive covenants have been placed on the deeds of affected properties to describe allowable uses. For properties in the North Creek Area, the language specifies that the properties shall be used only for purposes described as Industrial or Commercial II under Part 201. For properties in the South Creek Area, the language the language specifies the properties shall be used only for purposes described as Industrial or Commercial II, III, or IV under Part 201. For both the North and South Creek properties, any specific uses that are prohibited and which are otherwise allowed under the current zoning language are specifically identified as non-permitted uses in the restrictive covenants. For the recreational use property, the language specifies permitted recreational activities which include walking, sitting, picnics, parking, playgrounds, athletic activities, and participation in recreational or sporting events. Recreational activities that are not be permitted include those that would involve activities on the flat, landscaped portions of the property adjacent to the creek banks that would disturb the landscaping or pavement (e.g., digging). The areas of the MCIP incorporated into the specific allowable uses are identified on Figure 2.

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

The signed restrictive covenants for the MCIP are included in Appendix K of this Closure Report.

The performance standard for the land-use restrictions is the prevention of property uses that allow direct human contact with soils at frequencies or for durations that exceed the exposure assumptions inherent in the direct human contact criteria that applies to the allowed land-use scenarios. Conditions that do not meet the performance standard for the land-use restrictions include, but are not limited to, use of the property for activities that are generally, or explicitly prohibited under the associated restrictive covenant. The maintenance of the land-use restrictions will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

### **3.4.2 REMEDIAL ACTIONS TO MITIGATE DIRECT CONTACT RISKS IN SURFACE SOILS**

#### ***Industrial/Commercial Areas – Surface Soils***

In the Industrial/Commercial use areas (North Creek and South Creek Areas), surface soils of concern were removed (excavated to a depth of 6-inches) and replaced to grade with clean fill (specifically, MDOT Class II sand and topsoil from an off-site commercial source) creating a clean fill cap in those areas that is 6-inches thick. A sheet of geogrid or equivalent was placed at the base of each excavation to identify the bottom of the clean fill. In the North Creek Area, these areas include soils south of Building 32 and 50. In the South Creek Area, these areas include soils in the vicinity of the former TechNickel operations. A Completion Report documenting this work is included in Appendix F of this Closure Report.

Because soils at depth below these areas may exceed applicable direct human contact criteria, land use in these areas will also be restricted to maintain the clean fill material as an exposure barrier as described in Section 3.4.3 below.

The performance standard for the soil caps is the prevention of direct human contact with impacted soil below. Conditions that do not meet the performance standard for the soil cap include, but are not limited to, a decrease in the elevation in the area by 6 inches or more (i.e., the geogrid/marker layer is exposed). The maintenance of the clean fill cap in the Industrial/Commercial use areas will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

With regard to surface soils in the North Creek Area not subject to excavation, as specified in the restrictive covenants for these properties, the expected activity patterns in the North Creek area are consistent with the exposure assumptions used to calculate generic Industrial/Commercial II criteria. If upon approval of this Closure Report, which relies on those assumptions, the property



owners fail to reliably restrict property access with fencing or other security measures then Clark will secure the site with fencing [see Section 3.6].

#### *Recreational Areas – Surface Soils in Flat Areas*

In the recreational use area, direct contact to surface soils on the flat, upland portions of the recreational use area will be precluded through maintenance of a landscaped soil barrier or paved barrier. Surface soils in unpaved flat areas adjacent to the steep creek banks were removed (excavated to a depth of 24-inches) and replaced to grade with clean fill (specifically, MDOT Class II sand and topsoil from an off-site commercial source) creating a clean fill cap in those areas that is 24-inches thick. A sheet of geogrid or equivalent was placed at the base of each excavation to identify the bottom of the clean fill. A Completion Report documenting this work is included in Appendix F of this Closure Report.

The performance standard for the landscaped soil barrier and the pavement barrier is the prevention of direct human contact with impacted soil below. Conditions that do not meet the performance standard for the ground covers in the recreational areas include, but are not limited to, the following: cracks that are more than 0.5 inches wide or other deterioration in asphalt or concrete pavement covers that exposes or will likely expose (before the next inspection) underlying soils; loss of vegetation and/or the topsoil cap through erosion, vandalism, animal activity, or other means.

The maintenance of these barriers in the recreational use area will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

#### *Recreational Areas – Surface Soils on Sloped Creek Banks*

Access to the creek banks in the recreational area has been discouraged through removal of catwalk type bridges and a small structure on the south side of the creek that previously attracted trespassers. As explained in Section 2.5.2.1, Clark performed a site-specific risk evaluation for recreational direct human contact exposures to the creek bank soils. The following areas and constituents of concern were identified as requiring some form of mitigation:

- **Area A:** Creek bank soils at locations SSA-1, SSA-6, SSA-12, SSA-13, SSA-17, SSA-18, SSA-19, and SSA-20 in Area A contain arsenic at concentrations exceeding the site-specific recreational land use DHC soil criterion of 25 mg/kg.
- **Area B:** Creek bank soils at location SSB-18 in Area B contain benzo(a)pyrene at a concentration exceeding its site-specific recreational land use DHC soil criteria of 7 mg/kg. In addition, sloped creek bank soils at locations SSB-21, SSB-22, and SSB-23 contain lead at concentrations exceeding its Part 201 generic residential DHC soil criterion of 400 mg/kg.

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

Remedial activities have been performed to preclude direct contact to soils on the sloped creek bank areas identified above. Surface soils were removed (excavated to a depth of 24-inches) and replaced to grade with clean fill (specifically, MDOT Class II sand and topsoil from an off-site commercial source) creating a clean fill cap in those areas that is 24-inches thick. Geogrid was placed at the base of each direct contact barrier to identify the bottom of the clean fill. A Completion Report documenting this work is included in Appendix F of this Closure Report.

The performance standard for the soil barrier is the prevention of direct human contact with impacted soil below. Conditions that do not meet the performance standard for the ground covers in the recreational areas include, but are not limited to, the following: significant loss of vegetation and/or the earthen cap through erosion, vandalism, animal activity, or other means.

The maintenance of these barriers in the recreational use area will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

### 3.4.3 REMEDIAL ACTIONS TO MITIGATE DIRECT CONTACT RISKS IN SUBSURFACE SOILS

#### *Sitewide Soils*

A general site health and safety plan has been prepared to address health and safety concerns that could arise during intermittent subsurface work. This plan is contained in Appendix I of this Closure Report. The deed restrictions also require that subsurface workers who may excavate impacted soils follow a site health and safety plan. The site health and safety plan describes measures workers need to take to protect themselves against potential unacceptable exposures during subsurface excavation of soils containing constituents above relevant criteria (i.e., DHC,  $C_{sat}$ , etc.). These measures include the need to conduct air monitoring in the breathing zone during excavation in order to protect against potential unacceptable inhalation exposures. Additionally, the health and safety plan describes personal protective equipment (e.g., respirators, safety glasses, rubber gloves, oversuit) that workers should be prepared to don in the event it is necessary.

A residual management plan has also been developed to specify proper handling and management of soil and groundwater that may be generated during future excavation activities at the site. The residuals management plan is provided in Appendix J of this Closure Report. The residual management requirements have been incorporated into restrictive covenants as well. The restrictive covenants were prepared to address not only the residual management procedures applicable to areas subject to subsurface use restrictions but also reflect the general soil relocation requirements that apply to the facility at large.

The restrictive covenants contained in Appendix K provide a detailed summary of the elements of an acceptable health and safety plan and residual management plan and indicate that the detailed plans are on file at City Hall for review.

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

The performance standard for the Health and Safety and Residuals Management requirements that apply to property owners conducting subsurface work is the prevention of potentially unacceptable exposures to workers and the prevention of re-location of residual soils or groundwater to locations that are not similarly restricted with respect to land-use. Conditions that do not meet the performance standard for the Health and Safety Plan and Residuals Management requirements include, but are not limited to, performance of subsurface work without implementing a Health and Safety Plan that is sufficient to prevent potential unacceptable exposures to workers or without implementing a Residuals Management Plan that is sufficient to prevent potential unacceptable exposures under the allowable land use of the property to which the residuals are re-located.

The maintenance of the general Health and Safety and Residual Management plans and assurance that property owners will be aware of the Health and Safety and Residual Management requirements and plans will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

*Industrial/Commercial Areas – Subsurface Soils*

Certain industrial/commercial use areas of the site have been identified as being underlain by soils that may exceed industrial/commercial direct contact criteria. A restrictive covenant has been placed on the deeds of affected properties and Clark will assure that a surface cover - direct contact barrier in these areas is maintained as a direct contact barrier to underlying soils. These surface covers include pavement, building slabs, clean fill placed as described in Section 3.4.2, above, or simply soil that is not impacted above industrial/commercial direct contact criteria. The restrictive covenants for the properties include surveyed maps identifying the areas of subject properties subject to the cover restrictions.

In the North Creek Area, the areas subject to use restrictions requiring the maintenance of ground cover include soils beneath and south of Buildings 32 and 50 (Figure 7), and soils south of Building 37A. In the South Creek Area, the areas subject to use restrictions based on subsurface contact concerns include soils in the vicinity of the former TechNickel operations. These areas are specifically identified in the restrictive covenants contained in Appendix K. Use restrictions (cover maintenance) in former settling pond area due to residual alkaline material are limited to the area underlying a portion of the sanitary sewer beneath the steep creek bank at a depth of about 5 feet below grade.

The performance standard for the surface cover direct - contact barriers (pavement, building slabs, clean fill placed as described in Section 3.4.2, above, or simply soil that is not impacted above industrial/commercial direct contact criteria) is the prevention of direct human contact with impacted soil below. Conditions that do not meet the performance standard for the concrete and pavement ground covers in the industrial/commercial use areas include, but are not limited

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

to, the following: cracks that are more than 0.5 inches wide or other deterioration that exposes or will likely expose (before the next inspection) underlying soils. Conditions that do not meet the performance standard for the soil cover (clean fill or existing soils that meet industrial/commercial criteria) in the industrial/commercial use areas include, but are not limited to, exposure of underlying soils (i.e., exposure of the geogrid/marker layer at the base of the cover)..

Maintenance of surface cover in affected areas to prevent direct contact exposures to subsurface soils under routine uses of the site will be accomplished through the implementation of the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

*Recreational Use Areas – Subsurface Soils*

As explained above, in the recreational use area, direct contact to surface soils on the flat, upland portions of the recreational use area will be precluded through maintenance of a landscaped soil barrier or paved barrier. Surface soils in unpaved flat areas adjacent to the creek banks were removed (excavated to a depth of 24-inches) and replaced to grade with clean fill (specifically, MDOT Class II sand and topsoil from an off-site commercial source) creating a clean fill cap in those areas that is 24-inches thick. A sheet of geogrid or equivalent was placed at the base of each excavation to identify the bottom of the clean fill. A Completion Report documenting this work is included in Appendix F of this Closure Report.

Continued maintenance of the landscaped soil barrier and pavement barrier will also preclude exposure to soils at depth under routine recreational use of the site.

**3.4.4 REMEDIAL ACTIONS TO MITIGATE POTENTIAL FUTURE INDOOR AIR INHALATION RISKS**

A restrictive covenant has been placed on the deeds of affected properties (Buchanan Industries South Parcel and General Machines South Parcel) to assure that the appropriate precautions are taken to prevent indoor air exposures in the event that buildings are constructed on those areas where soil volatilization to indoor air criteria exceedances for VOCs were observed. A general site health and safety plan has been prepared to address health and safety concerns that could arise during construction. This plan is contained in Appendix I. The areas subject to the building construction restrictions include soils south of Buildings 50 and 37A (Figures 7 and 9). The use restriction will specify that no new structure shall be constructed on the affected portions of the property without use of a vapor barrier under such new structure unless it can be demonstrated (based upon all appropriate investigation and data) that the soil or soil vapor in these areas meets applicable MDNRE soil volatilization to indoor air criteria (or equivalent) established at the time of such new construction. These areas are specifically identified in the restrictive covenants contained in Appendix K.

The performance standard for the land-use restrictions related to potential future indoor air exposures is the prevention of future building construction that could allow unacceptable indoor air exposures. Conditions that do not meet the performance standard for the land-use restrictions related to potential future indoor air exposures include, but are not limited to, construction of buildings in the restricted areas without appropriate engineering controls (i.e., a foundation vapor barrier) or without appropriate demonstration that such engineering controls are not needed to prevent potential indoor air exposures. The maintenance of the land-use restrictions related to potential future indoor air exposures will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

#### **3.4.5 REMEDIAL ACTIONS TO ADDRESS FUTURE POTENTIAL DRINKING WATER CONCERNS**

A restrictive covenant has been placed on the deeds of all MCIP properties to assure that wells will not be installed on the properties for extracting groundwater for potable or domestic uses.

The performance standard for the resource-use restrictions is the prevention of installation of potable wells, which could allow unacceptable groundwater ingestion exposures. Conditions that do not meet the performance standard for the resource-use restrictions include, but are not limited to, construction of drinking water wells on any property in the MCIP. The maintenance of the resource-use restrictions will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

The signed land and resource use restrictions for the MCIP are included in Appendix K of this Closure Report.

#### **3.4.6 REMEDIAL ACTIONS TO ADDRESS FUTURE CONCERN REGARDING GROUNDWATER DISCHARGE TO MCCOY CREEK**

As explained in Sections 3.2 and 3.3, certain interim response activities (IRAs) have been performed in response to MDNRE's comments on the November 2001 RAP and the subsequent March 2003 Revised RAP and April 2004 Second Revised RAP. These IRAs address many of the source areas identified at the site. The IRAs are documented in this Closure Report (Sections 3.2 and 3.3). Those that affect the GSI pathway include:

- Excavation of alkaline materials from the bed of McCoy Creek (completed September 2003),
- Excavation of alkaline materials from the former settling pond area (completed September 2003),
- Excavation of oily soils from the bank of McCoy creek (completed September 2003),
- Removal of floating oil from the Building 32 area (in progress),

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

- Removal of floating oil from the former D&B area (in progress),
- Removal of oil and other contaminants from the storm sewer outfall from the Building 32 area (completed in March 2005),
- Installation and operation of a groundwater extraction/treatment and re-injection system to address groundwater pH near the former settling pond,
- Installation and operation of a groundwater extraction/treatment and re-injection system to address barium in groundwater east of the former settling pond,
- Installation and operation of a groundwater extraction/treatment and re-injection system to address xylenes in soil and groundwater south of Building 50.

The performance of the interim response activities addresses the most significant GSI concerns. Specifically, excavation of the alkaline material from the creek bed and former settling pond area has reduced elevated pH levels in groundwater that discharges to the creek. Excavation of the former settling pond has also reduced PNA levels in groundwater migrating from that area. Removal of oil and other contaminants from the storm sewer outfall from the Building 32 area has addressed the migration of BTEX and oil to the creek from the Building 32 area. And removal of free product from the Building 32 and former D&B areas will improve groundwater quality with respect to PNAs. Also, collection of more accurate groundwater quality data for PNAs in the former D&B area has reduced concern regarding groundwater discharge downgradient of that area. Further, installation and operation of the groundwater extraction/treatment and re-injection systems 1) near the former settling pond, 2) east of the former settling pond and 3) south of Building 50 prevents discharge of groundwater from those areas.

As explained in Section 2.5.1.4, several areas of concern for groundwater discharge to McCoy Creek were identified based upon observed exceedances of generic GSI criteria for groundwater or exceedances of GSIP criteria for soil in areas proximate to the creek. Evaluation of the GSI pathway based on mixing zone based GSI criteria and the expanded database for the site, which now includes results for 1,681 groundwater samples, indicates with the exception of mercury, there are no concerns that are not addressed by the on-going remedial activities. Clark anticipates that the mercury variance will address the concerns identified by the exceedances for mercury in sentinel or GSI compliance wells adjacent to the creek.

Although no current GSI concerns are indicated beyond those described above for mercury, gasoline related VOCs have been observed in source areas in concentrations that exceed the mixing zone based GSI criteria or FAVs. These exceedances are in the former D&B area and the Building 32 area. Also, as described Section 2.5.1.4, free phase oil is being recovered from these areas. Clark has developed contingent remedial actions for these areas to assure that the remedial actions described in this Closure Report are protective of the GSI pathway. The contingent remedial actions are described in Section 3.5 of this Closure Report.

The performance standard for those contingent remedial actions will be the elimination of groundwater discharge(s) to the creek that exceed the mixing zone based GSI criteria.

### 3.4.7 REMEDIAL ACTIONS TO ADDRESS GROUNDWATER CONTACT CONCERNS

As described in Section 3.3.3, extensive excavation of oily soils and the white alkaline material in the former settling pond area has removed the source soils for the exceedances of pH and PNAs in groundwater in that area. In addition, a restrictive covenant has been placed on the deeds of the affected properties to prevent direct contact exposures to groundwater in affected areas through a notice delineating the areas that may be affected or the requirement for a site specific health and safety plan for all subsurface work. The properties and areas subject to restrictions on future groundwater contact include:

City South Parcel	<p><b>Former Settling Pond Area</b> – potential GCC exceedances for PNAs addressed through excavation of source soils and the general requirement in the restrictive covenant for a health and safety plan for all subsurface work.</p> <p><b>Former D&amp;B Area</b> – potential thin layer of cutting oil or bunker C heating oil on the water table addressed through a restrictive covenant delineating the affected area and the general requirement in the restrictive covenant for a health and safety plan for all subsurface work</p>
City Recreational Parcel	<p><b>Former Settling Pond Area</b> – potential GCC exceedances for PNAs and pH addressed through excavation of source soils and the general requirement in the restrictive covenant for a health and safety plan for all subsurface work.</p>
General Machines South Parcel	<p><b>Building 32 Area</b> - potential GCC exceedances for PNAs and potential for bunker C heating oil at the water table addressed through a restrictive covenant delineating the affected area and the general requirement in the restrictive covenant for a health and safety plan for all subsurface work.</p>
Former Clark Laboratory Property	<p><b>Near SB40NE35</b> - Potential GCC exceedances for PNAs the general requirement in the restrictive covenant for a health and safety plan for all subsurface work.</p>

Health and safety considerations for occasional subsurface workers in these and other areas of the MCIP, as well as residuals management issues for property owners to address the possibility of future relocation of soils, are addressed in the restrictive covenants. The health and safety considerations include the need for workers to take protective measures against exposures to impacted groundwater.

The performance standard for the Health and Safety and Residuals Management requirements that apply to property owners conducting subsurface work is the prevention of potentially unacceptable exposures to workers and the prevention of re-location of residual soils or groundwater to locations that are not similarly restricted with respect to land-use. Conditions that do not meet the performance standard for the Health and Safety Plan and Residuals Management requirements include, but are not limited to, performance of subsurface work without implementing a Health and Safety Plan that is sufficient to prevent potential unacceptable exposures to workers or without implementing a Residuals Management Plan that is sufficient to prevent potential unacceptable exposures under the allowable land use of the property to which the residuals are re-located.

The maintenance of the general Health and Safety and Residual Management plans and assurance that property owners will be aware of the Health and Safety and Residual Management requirements and plans will be accomplished through the implementation of the Monitoring Plan, Volume II in Appendix E of this Closure Report.

The signed land and resource use restrictions for the MCIP are included in Appendix K of this Closure report.

#### **3.4.8 REMEDIAL ACTIONS TO ADDRESS SOIL EROSION ON THE BANKS OF MCCOY CREEK**

Clark has addressed the potential for direct transport of soil (erosion) from the creek banks to the creek through compliance with the sedimentation and erosion control requirements of Part 91. Reduction of erosion has been accomplished through implementation of both structural and non-structural controls as Best Management Practices ("BMPs").

Structural controls were implemented to address erosion that is the direct result of engineered structures that have been constructed in or on the creek banks or that directly contact the creek banks. Based upon inspection of the creek banks, the following structural controls were implemented:

- Riprap was placed in the area of discharge underlying piped outfalls that discharge near or above the current waterline of McCoy Creek, including placement of riprap to create stone 'spillways' to McCoy Creek, where outfalls are discharging at elevations well above the current waterline of McCoy Creek;



Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

- Geotextile fabric and riprap was placed in areas where structural steel sheet piling has been installed into the bank of McCoy Creek and ongoing erosion was evident; and
- Limited regrading and placement of riprap, including grouting of riprap, where necessary, to stabilize soils was completed where significant erosion was observed or appeared to be imminent.

This work is documented in the completion report included in Appendix F of this Closure Report.

In contrast, non-structural controls are being implemented to reduce the long-term potential for erosion and to identify areas of the creek bank where additional structural controls may be warranted. Non-structural controls include periodic trimming, pruning and, where necessary and appropriate, removal of trees and vines on the creek banks to encourage growth of native ground cover.

The performance standard for the engineered and no-structural soil erosion controls is the prevention of direct transport of excessive soil from the creek banks to the creek. Conditions that do not meet the performance standard for these controls include, but are not limited to:

- Observation of significant erosion from the creekbanks, without regard to whether the erosion is derived from areas where erosion controls were recently constructed or other areas; and
- Observation of imminent significant erosion on the creekbanks (e.g., fully exposed "root balls" of trees on the slope, increasing verticality of significant areas of the creekbanks).

Long term monitoring and operation and maintenance of these erosion control mechanisms will be accomplished through the implementation of the O&M and monitoring plan included in Appendix G of this Closure Report. This plan includes periodic inspections of the creek banks by a certified stormwater operator for construction sites to determine areas where significant erosion is ongoing or appears likely to occur. Where significant ongoing erosion is occurring or appears likely to occur, the stormwater inspector, in consultation with a licensed professional engineer (when necessary), will make recommendations for additional structural controls to mitigate erosion in the area. Structural controls may include temporary controls (e.g., silt fence) to mitigate ongoing erosion. Recommendations will be implemented in a timely manner and the construction of additional structural controls will be reported to the MDNRE. Inspections of the creek banks will be documented in an erosion control log for the property that will be maintained at the site.

### 3.5 CONTINGENT REMEDIAL ACTIONS TO ADDRESS GROUNDWATER

#### *Performance Standard*

As explained in Section 2.5.1.4, several areas of concern for groundwater discharge to McCoy Creek were identified based upon observed exceedances of generic GSI criteria for groundwater or exceedances of GSIP criteria for soil in areas proximate to the creek. Evaluation of the GSI pathway based on mixing zone based GSI criteria and the expanded database for the site, which now includes results for 1,681 groundwater samples, indicates with the exception of mercury there are no concerns that are not addressed by the on-going remedial activities. Clark anticipates that the mercury variance will address the concerns identified by the exceedances for mercury in sentinel or GSI compliance wells adjacent to the creek.

Although no current GSI concerns are indicated beyond those described above for mercury, gasoline related VOCs have been observed in source areas in concentrations that exceed the mixing zone based GSI criteria or FAVs. These exceedances are in the former D&B area and the Building 32 area. Also, as described above, free phase oil is being recovered from these areas. Clark has developed contingent remedial actions for these areas to assure that the remedial actions described in this Closure Report are protective of the GSI pathway

Contingent remedial actions have also been developed for the area of concern located on the Denney's Automotive property, where groundwater upgradient of the GSI exceeds the acute criterion of 9.5 s.u. for pH. Groundwater in a shallow temporary monitoring well in the SB-54 location had a pH of 9.6 at the time the boring was drilled in 2001. Subsequent delineation and monitoring of groundwater quality at the GSI downgradient of SB-54 has indicated that groundwater pH at the GSI is within the range of 6.4 to 8.0 s.u., which is within the acceptable range for both chronic and acute exposures. However, because the potential exists for an exceedance of the acute criterion for pH at the GSI, a contingency plan for this area has been developed. The contingent remedy outlined here would be implemented in the event that a confirmed measurement of pH in the GSI compliance wells that is greater than 9.5 s.u. or an upward trend of some significance in pH in the GSI compliance wells is documented through quarterly monitoring results. Details of the contingency plan are included in Section 3.5.5 of this Closure Report.

The performance standard for the contingent remedial actions will be the elimination of groundwater discharge(s) to the creek that exceed the mixing zone based GSI criteria.

#### *General Basis for Remedial Design*

The following sections describe a contingent remedy for each area of concern. With the exception of the Denney's Parking Lot area, the remedies rely on groundwater capture to prevent

discharge of impacted groundwater to McCoy Creek. Proposed groundwater treatment technologies depend on the constituent of concern and to some degree, the expected influent concentrations. The treated water will be discharged to McCoy Creek under a NPDES permit. The areas of concern are identified and summarized on Table 1, which indicates the constituent(s) of concern for each area, concentration observed in monitoring wells in the area and the assumed dimensions and hydraulic characteristics of the assumed prospective plume. The proposed contingent remedies for the areas of concern are illustrated on Figures 13 through 15.

The required pumping rate is estimated for each plume based on the desired capture zone and the hydraulic characteristics of the area (Table 1). A range of hydraulic conductivities from 5 to 30 feet per day were used to determine necessary pumping rates. The greatest (worst case) estimated pumping rate was used as the basis for design for each contingent remedy. The organic influent concentrations assumed for each contingent remedy were assumed to be a worst case estimate based on either monitoring data from the area or, in cases where monitoring data indicated relatively low concentrations, a multiplier of the generic GSI criterion. The inorganic influent concentrations were based on monitoring data. Actual application of the contingent remedies for inorganic constituents will require pilot and bench scale testing to confirm the efficacy of the treatment technology. Proposed effluent concentrations are based on a survey of information in NPDES permits currently open to public comment and generic GSI criteria.

### *Schedules*

The schedules for implementation of the contingent remedies to address groundwater are provided in Figures 17 and 18. These schedules provide for preparation of detailed design specifications, if necessary.

### *Contingent Remedial Action Trigger*

The groundwater monitoring program includes two types of monitoring wells: GSI Compliance Wells and Sentinel Wells. The following is a description of each well type and their purpose:

1. **GSI Compliance Wells** are monitoring wells located near the groundwater surface water interface (GSI) adjacent to McCoy Creek. These wells are sampled to monitor groundwater prior to venting to the creek at what is considered to be the point of compliance and document that groundwater quality complies with applicable criteria (mixing zone based GSI criteria and final acute values).
2. **Sentinel Wells** are monitoring wells located between upgradient areas of concern and the GSI compliance point near the creek. Areas of concern at the MCIP include the Building 32 area where bunker C oil is being recovered from the water table and the Former D&B area where bunker C and cutting oil is being recovered from the water table. Sentinel wells are

sampled to monitor groundwater quality upgradient of the GSI compliance point. These data are expected to aid in predicting future concentrations of contaminants and compliance at the GSI.

The groundwater monitoring plan includes a contingency plan that will be implemented in the event that monitoring results indicate exceedances of the GSI criteria (criteria protective of chronic aquatic exposures)<sup>1</sup> or final acute values (FAV) criteria (criteria protective of acute aquatic exposures)<sup>2</sup>. The contingency plan will be implemented or triggered in the event that exceedances of the GSI criteria or FAV criteria are exceeded in either the GSI Compliance Wells or the Sentinel Wells. Exceedances of either of these criteria in the two types of wells will trigger distinctly different remedial activities as described below:

#### SENTINEL WELLS - CONTINGENCY PLAN AND TRIGGERS

For the site wide monitoring, the FAV and GSI criteria for the monitored parameters will serve as contingency plan trigger criteria. Sentinel wells are located upgradient of the GSI compliance point. Therefore, an exceedance of either the FAV or GSI criteria in a sentinel well is not an indication of an aquatic exposure at the GSI. Rather, an exceedance in a sentinel well indicates that an aquatic exposure may occur in the future if certain aquifer conditions and contaminant concentrations are present. As a result, an exceedance of the GSI or FAV criteria in a sentinel well will trigger immediate remedial response activities including heightened monitoring to determine if trends indicate that the exceedance will eventually extend to the GSI compliance point. In addition, in the case of an FAV exceedance at the sentinel well location, remedial system design will be completed so that an engineered response can be implemented immediately to prevent an actual aquatic exposure, should an exceedance subsequently occur in a GSI compliance well.

Specifically, an exceedance of the GSI or FAV criteria within a sentinel well will immediately trigger the response activities described below.

#### *Exceedance of GSI Criteria in Sentinel Well*

An exceedance of the GSI criteria in a sentinel well will result in the following actions:

- The MDNRE will be notified in writing within one week upon identification of the exceedance and of any change in monitoring frequency.
- If sampling is done annually, increase sample frequency in the sentinel well and in select GSI wells downgradient of the GSI criteria exceedance to quarterly until the exceedance is below

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<sup>1</sup> An exceedance of MZBC is defined as an exceedance that is consistent with MDNRE Operational Memorandum #17 (i.e., the average concentration in groundwater samples taken from GSI monitoring wells as required by Rule 716 subrule (10) or an alternative monitoring point approved under subrule (13) within the plume will be compared to the MZBC).

<sup>2</sup> An exceedance of FAV is defined as an exceedance in any GSI monitoring well as required by Rule 716 subrule (10) or an alternative monitoring point approved under subrule (13)

the GSI criteria for four consecutive sampling events. This heightened monitoring will be done to determine if trends indicate that the exceedance will eventually extend to the GSI compliance point

- If sampling is quarterly, no additional actions will be implemented. Downgradient GSI compliance wells will continue to be monitored for potential increases in concentrations.

#### *Exceedance of FAV in Sentinel Well*

An exceedance of the FAV criteria in a sentinel well will result in the following actions:

- The MDNRE will be notified in writing within one week upon identification of the exceedance.
- Sampling frequency will be increased from quarterly to monthly or from annually to monthly in the sentinel well with the FAV exceedance, and in the GSI compliance wells downgradient of the FAV exceedance until the exceedance is below the FAV criterion for four consecutive sampling events. This heightened monitoring will be done to determine if trends indicate that the exceedance will eventually extend to the GSI compliance point
- A remedial system design will be developed for expedited implementation in the event that an exceedance of the GSI or FAV occurs at the GSI compliance well downgradient of the sentinel FAV exceedance (see section 3.3.2). The remedial system design will be submitted to the MDNRE for review and approval within 45 days of the original exceedance of the FAV criteria in the sentinel well. This action will facilitate a shorter timeline for remedial action.

#### **GSI COMPLIANCE WELLS - CONTINGENCY PLAN AND TRIGGERS**

For the site wide monitoring, the FAV and GSI criteria for the monitored parameters will serve as contingency trigger criteria. GSI compliance wells are located very near the GSI compliance point. Therefore, an exceedance of the FAV criteria or the GSI criteria, based on an evaluation that is consistent with MDNRE Operational Memorandum No. 5<sup>3</sup> in a GSI Compliance Well will immediately trigger the following response activities:

#### *Exceedance of GSI Criteria in GSI Compliance Well*

An exceedance of the GSI criteria in a GSI Compliance Well will result in the following actions:

- The MDNRE will be notified in writing within one week upon identification of the exceedance.

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<sup>3</sup> i.e., the 95% UCL average concentration in ground water samples taken from GSI monitoring wells within the plume may be compared to the MZBC, if sufficient data are available.

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

- The monitoring location in which the exceedance was observed will be re-sampled within one week and laboratory analysis will be done on an expedited schedule.
- If the exceedance is confirmed through re-sampling, then the following actions will be taken immediately:
  1. The significance of the exceedance will be evaluated. This evaluation will be used to support either a proposal for continued monitoring or additional response activities depending on the results. The proposal will be submitted to the MDNRE within 45 days of the original exceedance of the GSI criteria in the GSI compliance well. The scope of the additional response activities will depend upon the nature of the parameter(s) that exceeded its trigger criterion.
  2. Concurrently with the evaluation in Item 1, Clark will initiate the design of a remedial system. If the results of the evaluation indicate that a remedial response is needed, the remedial system design will be submitted to the MDNRE, along with the proposal described in Item 1, for review and approval within 45 days of the original exceedance of the GSI criteria in the GSI well. This action will facilitate a shorter timeline for remedial action.
  3. Concurrently with the evaluation in Item 1, the monitoring location will be sampled twice per month for the constituent that exceeds until the concentration is determined to be below the GSI criteria for four consecutive sampling events.
  4. Additional monitoring wells may be installed and sampled to define the extent of the exceedance.
  5. Monthly progress reports will be submitted to the MDNRE during the period when an exceedance of the GSI criteria is observed.

*Exceedance of FAV in GSI Compliance Well*

An exceedance of the FAV criteria in a GSI Compliance Well will result in the following actions:

- The MDNRE will be notified in writing within one week upon identification of the exceedance.
- The monitoring location in which the exceedance was observed will be re-sampled within one week and laboratory analysis will be done on an expedited schedule.
- If the exceedance is confirmed through re-sampling, then the following actions will be taken immediately:

Final Closure Report  
McCoy Creek Industrial Park  
Buchanan, Michigan

1. Within 30 days of the original exceedance of the FAV, a proposal for additional response activities will be submitted to the MDNRE for review and approval. The scope of the additional response activities will depend upon the nature of the parameter(s) that exceeded its trigger criterion (i.e., metals versus volatile organic compounds or semi volatile organic compounds). In any case, the proposed response activities will include design, construction and operation of a groundwater extraction and treatment system to prevent the discharge of groundwater containing a constituent in concentrations exceeding FAV criteria to McCoy Creek in accordance with the schedules provided in the Section 3.5 of the Closure Plan. The schedule for design and construction of the groundwater extraction and treatment system will be triggered by the date of receipt of the results of the confirmatory sampling.
2. Concurrently with the evaluation in Item 1, the monitoring location will be sampled twice per month for the constituent that exceeds until the concentration is determined to be below the FAV criteria for four consecutive sampling events or the remedial system is installed and operational.
3. Additional monitoring wells may be installed and sampled to define the extent of the exceedance in support of design of the remedial system.
4. Monthly progress reports will be submitted to the MDNRE during the period when an exceedance of the FAV is observed.

In the event that a contingent remedy is triggered, and depending on the specific characteristics of the triggering conditions, alternative remedies that are equally efficacious may be selected and implemented. Should such an alternative remedy be necessary or desirable, its implementation would occur in an equal or lesser timeframe than presented in the corresponding implementation schedule and the MDNRE will be provided with timely notification of the change.

**3.5.1 POTENTIAL REMEDIAL ACTION TO MITIGATE EXCEEDANCES OF GSI CRITERIA DUE TO NAPHTHALENE IN GROUNDWATER VENTING FROM THE D&B AREA, COMPLEX A (PW-04/MW-28)**

The contingent remedy outlined here would be implemented in the event that concentrations of naphthalene in groundwater venting to McCoy Creek from Complex "A" of the D&B Area are confirmed to exceed applicable GSI criteria (MZBC and FAV) and the contingency plan described in Section 3.5 above (also referenced in Section 3.3 of Monitoring Plan in Appendix E of this Closure Report) is triggered.

The worst-case extent of venting groundwater that would be mitigated at the GSI under this scenario, based on known exceedances of generic GSI criteria, is presented in Figure 13. Under this scenario, the risk posed by PNAs venting to McCoy Creek would be mitigated through design, construction and operation of a groundwater extraction and treatment system.

ATTACHMENT C  
FINANCIAL ASSURANCE MECHANISM





U.S. BANK NATIONAL ASSOCIATION  
INTERNATIONAL DEPARTMENT, MK-WI-J6NI  
777 EAST WISCONSIN AVENUE  
MILWAUKEE, WISCONSIN 53202

SWIFT: USBKUS44MIL  
TELEPHONE: 414-765-6144  
FACSIMILE: 414-765-4485

JULY 13, 2010

REMEDIATION AND REDEVELOPMENT DIVISION  
MICHIGAN DEPARTMENT OF  
ENVIRONMENTAL QUALITY  
P.O. BOX 30426  
525 W. ALLEGAN STREET  
LANSING, MI 48909-7926

ENCLOSED IS OUR IRREVOCABLE STANDBY LETTER OF CREDIT  
NUMBER SLCWMIL03231 ISSUED IN FAVOR OF YOURSELVES,  
FOR THE ACCOUNT OF INGERSOLL RAND COMPANY.

IF YOU HAVE ANY QUESTIONS, PLEASE CALL THE UNDERSIGNED AT  
414-765-5534.

U.S. BANK NATIONAL ASSOCIATION

SUE ZUBE  
INTERNATIONAL BANKING OFFICER





U.S. BANK NATIONAL ASSOCIATION  
INTERNATIONAL DEPARTMENT, MK-WI-J6NI  
777 EAST WISCONSIN AVENUE  
MILWAUKEE, WISCONSIN 53202

SWIFT: USBKUS44MIL  
TELEPHONE: 414-765-6144  
FACSIMILE: 414-765-4485

IRREVOCABLE STANDBY LETTER OF CREDIT  
NUMBER SLCWMIL03231

JULY 13, 2010

Chief  
Remediation and Redevelopment Division  
Michigan Department of Environmental Quality  
P.O. Box 30426  
Lansing, Michigan 48909-7926

Dear Designated Authorized Representative:

SUBJECT: **Buchanan-McCoy Creek Industrial Park Site**  
**Site ID No. 11000330**

1. U.S. Bank National Association hereby issues this irrevocable Letter of Credit, No. SLCWMIL03231 (LOC) in favor of the Michigan Department of Natural Resources and Environment (Department) on behalf of Ingersoll Rand Company (Designated Party), for a sum of \$2,069,988.00 (Two Million Sixty Nine Thousand Nine Hundred and Eighty Eight and No/100 dollars), available by the Department's drafts at sight drawn on our institution, marked "Drawn under U.S. Bank National Association's LOC No. SLCWMIL03231 dated July 13, 2010." We are a bank or financial institution that has the authority to issue LOCs. Our operation is regulated and examined by the Office of the Comptroller of the Currency (OCC).
2. The purpose of this LOC is to provide financial assurance to the Department for monitoring, operation and maintenance, oversight, and other costs determined to be necessary by the Department to assure the effectiveness and integrity of the remedial action plan (RAP) at the facility known as the Buchanan-McCoy Creek Industrial Park Site (Facility), Site ID No. 11000330, and located at Third Street & Red Bud Trail.
3. This LOC is effective as of July 13, 2010, and shall expire on July 13, 2011, but such LOC shall be automatically extended for a period of at least one additional year unless, not less than one hundred and twenty (120) days before the expiration date indicated above, we notify both the Designated Party and the Department Authorized Representative (the Department division chief implementing Part 201) by certified mail of our decision not to extend the LOC beyond the current expiration date. The LOC shall be automatically extended

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PAGE TWO

IRREVOCABLE STANDBY LETTER OF CREDIT  
NUMBER SLCWMIL03231

for a period of one year each and every subsequent year unless, not less than one hundred and twenty (120) days before the extended expiration date, we notify the Designated Party and the Department Authorized Representative as indicated above. We agree that the one hundred and twenty (120)-day period shall begin on the date when both the Designated Party and the Department Authorized Representative have received the notice, as evidenced by the return certified mail receipts.

4. The Department Authorized Representative may make complete or partial drawing(s) on this LOC as follows. When making a partial drawing, the Department Authorized Representative must submit the original LOC to us together with any drawings hereunder for our endorsement of any payments effected by us and/or for cancellation.
  - (a) If, within ninety (90) days of both the Designated Party and the Department Authorized Representative's receipt of a notice from us that we have decided not to extend the LOC beyond its current expiration date, the Designated Party fails to make arrangements with us to provide the Department Authorized Representative with an extension of the current expiration date of this LOC or with an acceptable replacement LOC, or fails to make arrangements for another type of financial assurance mechanism acceptable to the Department Authorized Representative, the Department Authorized Representative may make a complete drawing on this LOC.
  - (b) If the Designated Party does not provide for monitoring, operation and maintenance, and other costs determined to be necessary by the Department to assure the effectiveness and integrity of the RAP at the Facility; and the Department, upon providing a thirty (30)-day notice to the Designated Party, implements these response activities, the Department Authorized Representative may draw on the LOC to reimburse the Department for its costs of doing the work.
  - (c) If the Designated Party does not reimburse the Department within thirty (30) days of the Designated Party's receipt of a summary of oversight costs from the Department, the Department Authorized Representative may draw on the LOC for the amount of costs the Designated Party owes the Department.
5. This LOC is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision, International Chamber of Commerce Publication No. 600) and the Michigan Uniform Commercial Code, where applicable. Where conflicts exist between the Uniform Customs and Practice for Documentary

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PAGE THREE

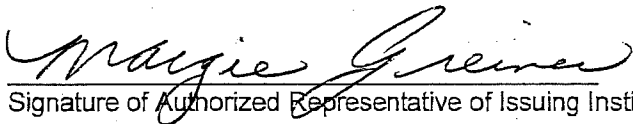
IRREVOCABLE STANDBY LETTER OF CREDIT

NUMBER SLCWMIL03231

Credits and the Michigan Uniform Commercial Code, the Michigan Uniform Commercial Code shall control.

6. We shall honor drafts drawn under and in compliance with the terms of this LOC and these drafts shall be duly honored upon presentation if presented on or after July 13, 2010, and on or before July 13, 2011, or by any automatically extended date as provided for in Paragraph 3 of this LOC. The amount of each draft must be endorsed on the reverse of this LOC by the negotiating bank or financial institution.
7. We certify that the wording of this LOC is identical to the wording provided by the Department Authorized Representative as of the date shown immediately below.

U.S. Bank National Association  
International Banking Department  
777 E. Wisconsin Avenue  
Milwaukee, WI 53202

  
Signature of Authorized Representative of Issuing Institution

Margie Greiner  
Print or Type Name

Assistant Vice President  
Print or Type Title

July 13, 2010  
Date

