

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

In the Matter of:

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| Johnson Matthey Inc. | : | Bishop Tube Hazardous Sites Cleanup Act Site |
| Suite 600 | : | |
| 435 Devon Park Drive | : | Malin Road, South of U.S. Route 30 |
| Wayne, PA 19087 | : | Frazer, East Whiteland Township |
| | : | Chester County, Pennsylvania |
| | : | |
| | : | |
| | : | Remedial Action |
| | : | |
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CONSENT ORDER AND AGREEMENT

This Consent Order and Agreement (Agreement) is entered into this 18th day of August 2018 by and between the Commonwealth of Pennsylvania, Department of Environmental Protection (Department) and Johnson Matthey Inc. (Johnson Matthey).

FINDINGS

The Department has found and determined the following:

- A. The Department is the agency of the Commonwealth with the duty and authority to administer and enforce the provisions of the Hazardous Sites Cleanup Act, 35 P.S. §§ 6020.101 et seq. (HSCA); The Land Recycling and Environmental Remediation Standards Act, Act 2 of May 19, 1995, P. L. 4, No 1995-2, 35 P.S. §§ 6026.101 et seq. (Act 2); and the rules and regulations duly promulgated thereunder. The Department is also the agency of the Commonwealth vested with the duty and authority to implement and administer the State support program under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 et seq. (CERCLA).
- B. Johnson Matthey is a Pennsylvania corporation with a principal place of business located at Suite 600, 435 Devon Park Drive, Wayne, Pennsylvania 19087.
- C. The Bishop Tube Site (Site) is 13.7 acres located on Malin Road, south of U.S. Route 30, in Frazer, East Whiteland Township, Chester County. The Site is situated at latitude 40° 02' 24" N and longitude 75° 32' 13" W. The Site may be located on the Malvern, PA 7.5

Minute Series Quadrangle. The topography of the Site slopes from approximately 450 ft mean sea level (MSL) at the southern property boundary to approximately 380 ft MSL at the northern property boundary.

- D. The area of the Site is in the town of Frazer, East Whiteland Township, which is characterized by mixed industrial, commercial and residential land uses. Public water is available in the area of the Site. However, one home, at 54 Conestoga Road located approximately 1,250 feet to the northeast of the Site, is supplied by a private well. The General Warren Village residential area borders the Site to the east across Little Valley Creek. Little Valley Creek is designated as an Exceptional Value stream under the Department's Water Quality Regulations. A rail line borders the Site to the north (Norfolk Southern). To the south is an undeveloped property and further south is another rail line (Amtrak) A drainage swale is located north of the property on the Norfolk Southern right-of-way. A bulk fuel storage terminal (formerly Exxon Mobil, currently owned by Buckeye Pipe Line Company, L.P.) is located just west of the Site across Malin Road.
- E. The Site is currently owned by Constitution Drive Partners L.P., which purchased it from the Central and Western Chester County Industrial Development Authority (Authority) in 2005, with the intention of redeveloping the property for commercial/light industrial use. Currently, the Bishop Tube property is being developed for industrial/commercial/warehouse use.
- F. In 1951 J. Bishop & Co. Platinum Works was the first entity known to begin manufacturing at the Site; the plant was built for the manufacturing of tubing from stainless steel. The plant that was built in 1951 was referred to as "Plant 5." In 1958, a second building was added for both tubing and platinum products fabrication (referred to as "Plant 8"). The site continued to operate under various owners and operators as a metal alloy tube manufacturing facility until 1999.
- G. Metal alloy tube production concentrated on seamless stainless steel products for much of the period of operation. During certain periods of time, chlorinated solvents were utilized in two vapor degreasers, processed in an onsite distillation unit and stored in an above ground tank at the Site.
- H. The Site was owned by the following entities for the time frames as noted:
- | | | |
|----------------|----|---|
| 1954 – 1967 | -- | J. Bishop and Company Platinum Works |
| 1969 – 1974 | -- | Bishop Tube Co. (n/k/a Whitaker Corporation) |
| 1974 – 2005 | -- | Central and Western Chester County Industrial Development Authority |
| 2005 – Present | -- | Constitution Drive Partners, L.P. |
- I. The Site was operated by the following entities for the time frames as noted:
- | | | |
|-------------|----|--------------------------------------|
| 1951 – 1967 | -- | J. Bishop and Company Platinum Works |
|-------------|----|--------------------------------------|

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|-------------|----|--|
| 1967 – 1969 | -- | Matthey Bishop, Inc. |
| 1969 – 1974 | -- | Whitaker Corporation, d/b/a Bishop Tube Co. |
| 1974 – 1989 | -- | Christiana Metals Corporation, d/b/a Bishop Tube Co. |
| 1989 – 1991 | -- | Electralloy Steel Corporation (Alloy Steel), d/b/a Bishop Tube Co. |
| 1991 – 1993 | -- | New Bishop Tube, a subsidiary of Marcegaglia S.p.A. |
| 1993 – 1999 | -- | Damascus Bishop Tube, a subsidiary of Marcegaglia S.p.A. |
| 1999 – 1999 | -- | Marcegaglia USA |

- J. From 1951 through April 1, 1969, the Site was owned by a company that was a predecessor of Johnson Matthey Inc. On April 1, 1980, Matthey Bishop changed its name to Johnson Matthey Inc.
- K. The Department's public files for the Site contain the following information:
1. In 1981 the Department requested that Christiana Metals conduct an investigation into possible contamination of groundwater at the Site. In 1981, the Department detected fluoride in a non-contact cooling water stream discharge at the Site. In 1981, 1987, 1989 and 1995, Christiana Metals installed monitoring wells at the Site as part of a voluntary site characterization. Groundwater was the source of the cooling water and well sampling revealed concentrations of fluoride in groundwater at levels in excess of Act 2 residential standards. In 1987 and subsequently, concentrations of chlorinated solvents in groundwater at levels in excess of Act 2 residential and non-residential standards were identified in the wells at the Site.
- L. In 1999, the Site operator, Christiana Metals, informed the Department that it would cease all voluntary actions to investigate and remediate contamination at the Site. At the same time, the Site's only tenant/operator, Marcegaglia USA, ended its lease agreement with Christiana Metals. Manufacturing operations at the Site ceased in 1999 and the Site was abandoned.
- M. In 1999 the Department determined that a home, located at 54 Conestoga Road, supplied by a private well, located approximately 1,250 feet northeast of the Site, contained chlorinated solvents at levels in excess of Act 2 residential and non-residential standards. A full house carbon filtration system equipped with an ultraviolet light for disinfection was installed at the affected residence in 1999, at the expense of Christiana Metals. The system is currently maintained by the Department. One of the purposes of this CO&A is to determine whether there is a hydrogeologic connection between this well and the Site.
- N. In 2002, a well at 30 Conestoga Road was found to contain trichloroethene (TCE) at approximately 9,000 ug/l. One of the purposes of this CO&A is to determine whether there is a hydrogeologic connection between this well and the Site.

- O. A consultant for the Department is conducting a three-phased investigation at the Site. This investigation has included partial characterization of soil, surface water, and groundwater.
1. Baker's investigation identified three main areas of soil contamination: (1 & 2) areas beneath former vapor degreasers in the upper building (Building No. 5) and lower building (Building No. 8) and (3) under a former drum storage area. Baker has reported that dense non-aqueous phase liquids (DNAPLs) have migrated through the soil and into the fractured bedrock. Baker's investigation identified other contaminants in soil samples, including, but not limited to, tetrachloroethene, 1, 2-dichloroethene, and 1,1,1-trichloroethane.
 2. Baker's investigation detected concentrations of contaminants in soils above and below the water table, which averages 4 – 7 ft. below ground surface, in the Building No. 8 area in excess of Act 2 standards. Baker installed thirteen additional wells at the Site and sampled the well at 30 Conestoga Road for four consecutive quarters. Concentrations of chlorinated solvents have been detected in the monitoring well that monitors a deep bedrock water-bearing zone near the northeast corner of the Site (MW-26C). Baker recorded TCE levels in groundwater in deep monitoring well MW-26C as high as 1,900,000 ug/L. In addition to chlorinated solvents, fluoride, chromium (total) and nickel have been found in on-site groundwater at levels exceeding the Pennsylvania residential Medium Specific Concentrations (MSCs).
- P. In March 2005 a Prospective Purchase Agreement (PPA) was reached between Constitution Drive Partners, L.P. (Developer) and the Department. Under the PPA the Developer agreed to remediate unsaturated soil at the Site. Under the PPA the Department agreed to remediate groundwater. The PPA was amended on January 22, 2007.
- Q. In 2007 the Department determined that an Interim Response Action, as defined in Section 103 of HSCA, should be taken to treat soil and shallow groundwater source areas, which constituted a continuing release of hazardous substances to the environment.
- R. The Department also determined that there was a reasonable basis for prompt action, within the meaning of Section 505(b) of HSCA to coordinate response actions between the Department and the Developer in a cost-effective manner.
- S. An Analysis of Alternatives and Proposed Response (AOA) was issued for public comment on December 16, 2006.
- T. The Statement of Decision and Response to Comments (SOD) were issued on September 5, 2007.
- U. Implementation of the Interim Response Action was initiated in April 2007.

- V. The Interim Response Action is not a final remedial response pursuant to Section 504 of HSCA. Additional response action(s) may be needed to achieve a complete and final cleanup for the entire Site.
- W. The Department's investigation at the Site indicates that hazardous substances, such as chlorinated solvents, were stored and used at the Site between 1951 – 1999. A prior release of chlorinated solvents was detected in monitoring wells at the Site in 1987 in the course of a Site Inspection conducted by NUS Corp. for the US EPA, , and as of the date of this COA hazardous substances are still present in the ground water and soil at levels in excess of Act 2 standards.
- X. There are, and have been, releases of hazardous substances at the Site within the meaning of Section 501 and Chapter 7 of HSCA and Section 101 (14) of CERCLA, 42 U.S.C. § 9601 (14), which exceed the Soil Statewide Health Standards under Act 2. Contaminated areas are identified in the SOD.
- Y. Section 701(a) of HSCA and Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), provide that owners and operators of sites during the time of releases or threatened releases of hazardous substances shall be liable for response costs incurred by the Department.
- Z. The Department has determined that Johnson Matthey is a potentially responsible person (PRP) within the meaning of Section 701(a) of HSCA and Section 107(a) of CERCLA. Other persons may also be PRPs.

ORDER

After full and complete negotiation of all matters set forth in this **CONSENT ORDER AND AGREEMENT (CO&A)** and upon mutual exchange of the covenants contained herein, the parties intending to be legally bound, it is hereby **ORDERED** by the Department and **AGREED** to by Johnson Matthey as follows:

1. **Authority.** This Agreement is an Order of the Department authorized and issued pursuant to Sections 505(c) and 1102 of HSCA, 35 P.S. §§ 6020.505(c) and 6020.1102. The failure of Johnson Matthey to comply with the terms and conditions of this Agreement shall subject Johnson Matthey to any and all remedies available to the Department for the violation of an Order.
2. **Findings.** Johnson Matthey agrees that the findings set forth in Paragraphs A-W above are true and correct to the best of its knowledge, information and belief, and, in any matter or proceeding involving Respondents and the Department, Johnson Matthey shall not challenge the accuracy or validity of these findings. The Parties do not authorize any other persons to use the findings in this CO&A in any matter or proceeding.
3. **Environmental Investigations.** Environmental Investigations are defined as all of Johnson Matthey's obligations as identified in paragraph 5 of this CO&A.

4. **Johnson Matthey's Covenant Not To Sue.** Johnson Matthey covenants not to sue and shall not assert any claims, demands or causes of action in law or equity against the Commonwealth for response costs or injunctive relief associated with the performance of Environmental Investigations at the Bishop Tube Site. Nothing in this paragraph shall prevent Johnson Matthey from raising any defense to any Department action relating to the Site, except as otherwise provided herein. This covenant not to sue extends only to the Commonwealth and not to any other person.

5. **Johnson Matthey's Obligations.** Johnson Matthey shall:
 - a. Within 30 days of the effective date of this CO&A, submit to the Department a schedule to prepare a Work Plan(s) for the completion of a Site Investigation that will characterize the following media and pathways at the Site: 1) Groundwater contamination contained within the bedrock originating from the former Bishop Tube Property; 2) Contaminated groundwater contained within the overburden (i.e. above the bedrock zone) originating from the former Bishop Tube Property, and occurring on properties down-gradient from the former Bishop Tube Property; 3) The vapor intrusion pathway resulting from migration of contaminants from the former Bishop Tube Property; 4) The groundwater to surface water pathway, to determine whether, and if so where, contaminated groundwater resulting from the Bishop Tube Site may be entering Little Valley Creek or other surface water features; 5) Performance of a Risk Assessment, and 6) a Feasibility Study (if necessary).
 - b. This schedule may include phasing of Work Plan submittals but shall include time-frames for submission of Work Plan(s) for each of the above-referenced media and pathways.
 - c. The Work Plan(s) submitted under this CO&A shall include a schedule for conducting field activities and submission of a draft report of findings associated with the field work. The schedule(s) contained in the Work Plan(s) shall also be enforceable under this CO&A.
 - d. While in the process of carrying out all of the activities associated with the Site Investigation, provide status reports to the Department every month, or an alternate frequency of submission agreed to by the Parties and set forth in writing. The first status report is due one month after the Effective Date of this CO&A.
 - e. The Final Site Investigation Report shall conform to the requirements of Chapter 250.408 of the Land Recycling Program Regulations pertaining to Remedial Investigations conducted under the Department's Land Recycling Program (Act 2). The Feasibility Study Report (if necessary) shall be in accordance with "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, Interim Final" (October 1988) and shall include at least two remedial alternatives capable of meeting an Act 2 Standard or combination of Act 2 Standards. Within 30 days of submitting any Final Feasibility Study Report, the

parties shall advise the Department in writing which, if any, contaminated media present at the Site require remediation to meet one or more standards established under Act 2.

- f. Johnson Matthey will respond in writing within 30 calendar days of receipt of written comments from the Department regarding Johnson Matthey's activities related to the Site Investigation.
- g. Upon approval or modification of the Work Plan(s) and subject to Paragraph 13 (Force Majeure), Johnson Matthey shall implement the Site investigation in accordance with the Work Plan(s) and schedule contained therein as approved or modified by the Department.

6. **Department's Option to Terminate.** Based on a review of Johnson Matthey's performance under Paragraph 5 and Johnson Matthey's responses to the Department's written comments, pursuant to Subparagraph 5(f), the Department may, in writing, advise Johnson Matthey that the manner in which it is performing its obligations under Paragraph 5 is not satisfactory and that activities pursuant to that paragraph should immediately be terminated. In the event that the Department notifies Johnson Matthey in writing that Johnson Matthey's performance of its obligations under Paragraph 5 is unsatisfactory, Johnson Matthey shall immediately cease all activities at the Site, and its obligations under Paragraph 5 shall terminate. Prior to invoking this option to terminate, the Department shall provide Johnson Matthey with 30 days prior written notice of its intent to invoke under this provision and shall identify the deficiency(ies) for which it is invoking this provision. Johnson Matthey shall have the right to correct the deficiency(ies) that have caused the Department to invoke this provision. If Johnson Matthey desires to correct the deficiency(ies) that have been identified in writing by the Department, it shall notify the Department, in writing, within fourteen calendar days of receipt of the Department's written notice. Such notice shall: (i) inform the Department that Johnson Matthey intends to correct the deficiency(ies) identified in the Department's notice; and, (ii) set forth a plan for correcting the deficiency(ies). The Department shall notify Johnson Matthey, in writing, of its final determination whether to invoke this option to terminate within five (5) business days of receipt of Johnson Matthey's written response. Any notices sent by either party shall be in accordance with Paragraphs 11 and 12, herein. Any and all decisions the Department makes pursuant to this Paragraph shall not be appealable.

7. **Department's Covenant Not to Sue.** Subject to the Reservation of Rights set forth in Paragraph 9 below, and provided that Johnson Matthey is in full compliance with all of the terms and conditions of this CO&A, the Department covenants not to sue or take administrative action against Johnson Matthey pursuant to HSCA, CERCLA or any other environmental state or federal statute or common law for response costs or injunctive relief for Johnson Matthey's performance of Environmental Investigations at the Bishop Tube Site. This covenant not to sue shall become effective upon the Effective Date of this CO&A as set forth in Paragraph 21.

8. **Certification.** Johnson Matthey certifies that, to the best of its knowledge, it has provided to the Department all information requested by the Department and currently in its possession, custody or control that relates to the generation, treatment, transportation or disposal of hazardous substances at the Site.
9. **Reservation of Rights.** The Department reserves the right to take any response action(s) to address releases or threatened releases at the Site to protect human health or the environment.
- a. The Department's Covenant Not to Sue set forth in Paragraph 6 above shall not apply to:
- (i) Failure to meet the requirements of this CO&A;
 - (ii) Past, present or future releases of hazardous substances or contaminants outside the boundaries of the Site;
 - (iii) Past, present or future violations of Federal or State criminal law;
 - (iv) Natural resource damages.
- b. With regard to matters not expressly addressed in this CO&A, the Department specifically reserves all rights to institute equitable, administrative, civil or criminal actions for any past, present or future violation of any statute, regulation, permit or order, or for any pollution or potential pollution to the air, land or waters of the Commonwealth of Pennsylvania.
10. **Contribution Protection.** The Department agrees that, by entering into this CO&A, Johnson Matthey is a person who has resolved its liability to the Commonwealth for the performance of Environmental Investigations at the Bishop Tube Site, and shall be afforded any legally existing protections provided in Section 705 of HSCA and Section 113(f) of CERCLA for contribution claims against Johnson Matthey regarding matters addressed in this CO&A. The contribution protection afforded by this paragraph shall be in addition to the exclusions from or defenses to liability that may be available to Johnson Matthey, its successors and assigns, under statutory or common law. This provision shall become effective immediately upon execution of this CO&A by the parties hereto.
11. **Correspondence with the Department.** All correspondence with the Department concerning this CO&A shall be addressed to:

Mr. Dustin Armstrong
Environmental Cleanup Program
PA Department of Environmental Protection
2 East Main Street
Norristown, Pennsylvania 19401

With a copy to:
Lauren G. Rosen, Assistant Counsel
PA Department of Environmental Protection

Office of Chief Counsel
2 East Main Street
Norristown, PA 19401

12. **Correspondence with Johnson Matthey.** All correspondence with Johnson Matthey concerning this CO&A shall be addressed to:

Johnson Matthey Inc.
c/o Robert M. Talley
President-- Corporate, General Counsel and Secretary
Suite 600
435 Devon Park Drive
Wayne PA 19087-1998

With a copy to:

Joel R. Burcat, Esq.
Saul Ewing LLP
Seventh Floor
Two North Second St.
Harrisburg, PA 17101

13. **Force Majeure.**

- a. In the event that Johnson Matthey is prevented from complying in a timely manner with any time limit imposed in this Consent Order and Agreement solely because of a strike, fire, flood, act of God, or other circumstance beyond Johnson Matthey's control and which Johnson Matthey, by the exercise of all reasonable diligence, is unable to prevent, then Johnson Matthey may petition the Department for an extension of time. An increase in the cost of performing the obligations set forth in this Consent Order and Agreement shall not constitute circumstances beyond Johnson Matthey's control. Johnson Matthey's economic inability to comply with any of the obligations of this Consent Order and Agreement shall not be grounds for any extension of time.
- b. Johnson Matthey shall only be entitled to the benefits of this paragraph if it notifies the Department within five (5) working days by telephone and within ten (10) working days in writing of the date it becomes aware or reasonably should have become aware of the event impeding performance. The written submission shall include all necessary documentation, as well as a notarized affidavit from an authorized individual specifying the reasons for the delay, the expected duration of the delay, and the efforts which have been made and are being made by Johnson Matthey to mitigate the effects of the event and to minimize the length of the delay. The initial written submission may be supplemented within ten (10) working days of its submission. Johnson Matthey's failure to comply with the requirements of this paragraph specifically and in a timely fashion shall render this paragraph null and of no effect as to the particular incident involved.

- c. The Department will decide whether to grant all or part of the extension requested on the basis of all documentation submitted by Johnson Matthey and other information available to the Department. In any subsequent litigation, Johnson Matthey shall have the burden of proving that the Department's refusal to grant the requested extension was an abuse of discretion based upon the information then available to it.
14. **Severability.** The Paragraphs of this Agreement shall be severable, and should any part be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.
15. **Entire Agreement.** This CO&A shall constitute the entire integrated agreement of the Parties. No prior or contemporaneous communications or prior drafts shall be relevant or admissible for purposes of determining the meaning or extent of any provisions herein in any litigation or any other proceeding.
16. **Attorney's Fees.** The Parties shall bear their respective attorney's fees, expenses, and other costs in prosecution or defense of this matter, or any related matters, arising prior to the execution of this CO&A.
17. **Modifications.** No changes, additions, modifications or amendments of this CO&A shall be effective unless they are set out in writing and signed by the Parties.
18. **Titles.** A title used at the beginning of any paragraph of this CO&A may be used to aid in the construction of that paragraph but shall not be treated as controlling.
19. **Decisions Under Consent Order.** Any decision which the Department makes under the provisions of this CO&A is intended to be neither a final action of the Department under 25 Pa. Code § 1021.2, nor an adjudication under 2 Pa. C.S. § 101 and shall not be appealable to the Environmental Hearing Board or to any Court. Any objection which Johnson Matthey may have to the decision will be preserved until the Department enforces this CO&A. At no time, however, may the Parties challenge the content or validity of this CO&A or challenge the Findings agreed to in this CO&A.
20. **Publication and Comment.** Notice of this CO&A shall be published in the Pennsylvania Bulletin and in a newspaper of general circulation in the area of the Site pursuant to Section 1113 of HSCA, 35 P.S. § 6020.1113, and the Department shall receive and consider comments relating to this CO&A for a period of sixty (60) days from the date of publication. The Department reserves the right to withdraw its consent to this CO&A if, during the public comment period, the comments disclose facts or considerations which indicate to the Department, in its discretion, that this CO&A is inappropriate, improper, or not in the public interest.
21. **Effective Date.** Except as otherwise provided herein, this Agreement shall be effective upon the date that the Department notifies Johnson Matthey, in writing, that this

Agreement is final and effective in its present form and that the Department has filed a response to any significant comments received pursuant to Paragraph 20 above, or that no such comments were received during the public comment period. However, if the Department notifies Johnson Matthey that it is withdrawing its consent to this Agreement in response to public comments received pursuant to Paragraph 20 above, the terms of this Agreement shall be null and void and shall not be used as evidence in any litigation or other proceeding.

IN WITNESS HEREOF, the Parties have caused this Consent Order and Agreement to be executed by their duly authorized representatives. The undersigned representatives of Johnson Matthey certify, under penalty of law, as provided in 18 Pa.C.S.A. § 4904, that they are authorized to execute this Consent Order and Agreement on behalf of Johnson Matthey, that Johnson Matthey consents to the entry of this Consent Order and Agreement as a final ORDER of the Department, and that Johnson Matthey hereby knowingly waives its right to appeal this Consent Order and Agreement and to challenge its content or validity, which rights may be available under Section 4 of the Environmental Hearing Board Act, 35 P.S. § 7514, the Administrative Agency Law, 2 Pa C.S. § 103(a) and Chapters 5A and 7A, or any other provision of law.

FOR:
Johnson Matthey Inc.

 8/12/08

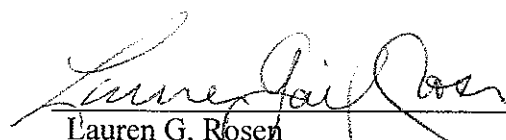
Robert M. Talley Date
President -- Corporate, General
Counsel and Secretary

FOR:
Commonwealth of Pennsylvania
Department of Environmental Protection

 8-18-08

Stephan B. Sinding Date
Manager
Environmental Cleanup Program

FOR:
Commonwealth of Pennsylvania
Department of Environmental Protection

 08-18-08

Lauren G. Rosen Date
Assistant Counsel
Southeast Regional Office