

Resolution # 17-134

RESOLUTION AUTHORIZING EXECUTION OF AN  
INDUSTRIAL SEWER CONNECTION PERMIT MODIFICATION TO:  
**Arconic – Howmet Castings & Services, Inc.**  
Block 10101 / Lots 1 & 4  
Township of Rockaway, New Jersey

**WHEREAS**, the Rockaway Valley Regional Sewerage Authority (hereinafter “the Authority”) is authorized by the Sewerage Authorities Law [N.J.S.A. 40:14A-7(11)] to make and enforce rules and regulations for the management and regulation of its business and affairs and/or the use, maintenance, and operation of the sewerage system and any other of its properties and to amend the same; and

**WHEREAS**, the Authority is a Delegated Local Agency of the New Jersey Department of Environmental Protection and administers an industrial pretreatment program within the service area of the Authority; and

**WHEREAS**, in accordance with the regulations governing industrial pretreatment programs established at N.J.S.A. 7:14A-1 et. seq., the Authority is required to issue permits and renew permits to industrial discharges within the RVRSA that discharge process wastewater to the Authority’s facility; and

**WHEREAS**, in compliance with the regulations contained at N.J.A.C. 7:14A-15.10, public notice of the issuance of a draft Industrial Sewer Connection Permit to Arconic – Howmet Castings & Services, Inc. was published in the Daily Record on September 9, 2017, and a thirty (30) day public comment period commenced from the date of publication until October 8, 2017, wherein no comments were received.

**NOW THEREFORE, BE IT RESOLVED**, by the Rockaway Valley Regional Sewerage Authority as follows:

1. The Executive Director, JoAnn Mondsinì, is hereby authorized to execute an Industrial Sewer Connection Permit modification in accordance with the terms and conditions of a form of Industrial Sewer Connection Permit (ISCP), SIC Codes 3341 and 3369

dated November 10, 2017 marked Schedule "A" attached hereto and a part hereof, a copy of which is also, on file at the offices of RVRSA, to **Arconic – Howmet Castings & Services, Inc.**, subject to compliance with any permit condition(s) which must be satisfied prior to issuance of this permit renewal, if any; and subject to compliance with all remaining engineering requirements, if any.

2. This approval is subject to the payment of the appropriate RVRSA pretreatment annual permit fee.
3. This ISCP is subjected to a flow limitation not to exceed 73,000 gallons per day, monthly average.

I hereby certify that this Resolution was adopted at a meeting of the Rockaway Valley Regional Authority held on November 9, 2017.

On motion of Glenn Corbett

Seconded by Joseph Lowell

And a Roll Call Vote as Follows:

Yeas: (7) Andes, Cegelka, Corbett, Lavery, Lowell, Recchia, Rossi

Nays: (0) None

Abstain: (1) Vincitore

Absent: (2) Guadagno and Schorno

  
\_\_\_\_\_  
Mary Roman  
Assistant Board Secretary



## FACT SHEET

### Arconic: Howmet Castings & Services Inc.

This fact sheet sets forth the principal facts and the significant factual, legal, and policy considerations examined during preparation of the draft permit.

**PERMIT ACTION:** Modification of Industrial Sewer Connection Permit

**PERMITTEE NAME AND ADDRESS:** Arconic: Howmet Castings & Services Inc.  
9 Roy Street  
Dover, NJ 07801

**FACILITY NAME AND ADDRESS:** Arconic: Howmet Castings & Services Inc.  
9 Roy Street  
Rockaway Township, NJ

**FACILITY CONTACT INFORMATION:** David Knapp  
Manager, Environmental, Health and Safety  
Phone No.: (973) 328-8522  
Email: [david.knapp2@alcoa.com](mailto:david.knapp2@alcoa.com)

**RECEIVING LOCAL AGENCY:** Rockaway Valley Regional Sewerage Authority

**RECEIVING COLLECTION SYSTEM:** Rockaway Valley Regional Sewerage Authority  
(main-trunk line, metered at Meter Chamber RT-3)

#### DESCRIPTION OF FACILITY OPERATIONS:

The primary activity at this facility is precision investment castings (foundry) and production of alloys from elemental metals (SIC Codes: 3341 and 3369). The "Alloy" facility produces super-alloys for use at various casting facilities. The "Castings" facility re-melts alloys into ceramic molds formed by wax patterns. The castings are then cleaned and shipped out. This facility is subject to 40 CFR 433 – Metal Finishing Point Source Category, Subpart A – Metal Finishing Subcategory and 40 CFR 433.15 – Pretreatment Standards for Existing Sources (PSES). Additional process/activities at the facility include: Castings Division: wax pattern, ceramic shell, shell wrap, steam autoclave, vacuum induction melting, ceramic shell removal, gate removal, metal finishing. Quality Control Division: FPI, X-Ray, etching, packing. Alloy Division: Ingot processing, refractory processing, vacuum induction melting, and air induction melting.

Alcoa-Howmet Castings and Alloy generates **73,000** (permitted) gallons per day (monthly average) of combined wastewater from its two (2) castings plants, alloy plant, wastewater treatment plant and offices.

The on-site wastewater treatment plant and pretreatment devices consist of: filtration system, oil/grease separation, grease trap, silver recovery/removal system, spill protection, settling weir



system, coalesce equipment, chemical precipitation neutralization, pH correction, and sedimentation.

**DESCRIPTION OF DISCHARGE LOCATION(S) (see attached Figure 1):**

**Name:** DSN-01 [*Existing discharge point*]  
**Latitude:** 40° 52' 54.95' N  
**Longitude:** 74° 31' 40.65' W  
**Description:** HDC-1 Manhole (Outfall DSN-01)

**Name:** DSN-02 [*New proposed discharge point*]  
**Latitude:** 40° 52' 49' N  
**Longitude:** 74° 31' 51' W  
**Description:** HDC-2 Manhole (Outfall DSN-02)

**SUMMARY OF PERMIT CONDITIONS (see attached Table 1):**

The following pollutants are regulated: in addition to flow, CBOD<sub>5</sub>, BOD<sub>5</sub>, COD, suspended solids (TSS), dissolved solids (TDS), pH, oil & grease, phosphorus, NH<sub>3</sub>-N, arsenic (As), beryllium (Be), cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), lead (Pb), mercury (Hg), molybdenum (Mo), nickel (Ni), silver (Ag), zinc (Zn), phenols, cyanide, and total toxic organics (TTO).

The basis for the limitations established is summarized in the local limits evaluation report entitled RVRSA Local Limit Study, prepared by Kleinfelder, dated November 2014, last revised December 2016, including April 14, 2017 Addendum; approved by the NJDEP on April 24, 2017, and approved by the RVRSA board on August 10, 2017 and the proposed amendments approved by the RVRSA board on October 12, 2017.

Below is a summary of key aspects of this permit modification application.

1. Flow: The flow from Howmet Castings (Howmet) is proposed to increase from 72,000 gpd (monthly average) to 73,000 gpd (monthly average). In a letter dated June 16, 2017, Howmet requested an 8,000 gpd increase in gallonage, to a proposed permitted limit of 80,000 gpd. RVRSA determined that Howmet did not demonstrate the need for more than a monthly average flow of 73,000 gpd, and therefore RVRSA personnel recommends an increase of only 1,000 gpd. The prior twelve (12) months of flow show an average flow of 56,696 gpd and a maximum flow of 78,162 gpd. The additional 1,000 gpd being recommended by RVRSA personnel is to allow for the addition of a new line for the discharge of non-contact cooling water as described below.
2. Non-Contact Cooling Water Discharge (additional flows): Due to future plant improvements, increased production, and the NJDEP no longer permitting their non-contact cooling water discharge into storm drains, therefore, Howmet requested to tie-in additional flows and processes into the sewer system. These processes consist mainly of non-contact cooling water discharges from three (3) cooling towers, needed to supply cooling water to furnaces. RVRSA recommends granting an



increase in flow from 72,000 gpd (monthly average) to 73,000 gpd (monthly average).

3. Introduction of Second Sampling Location (DSN – 02): The 2,750 gpd of non-contact cooling water from the Alloy Division will not be entering the current DSN-01 sampling location and therefore, an additional sampling point (DSN-02) is being added to permit and regulate the non-contact cooling water discharge from the Alloy buildings.
4. Non-Contact Cooling Water Discharge (emergency discharge only): Howmet is also requesting approval to discharge up to 120,000 gpd to the RVRSA in an emergency situation (power outage when the existing cooling systems would not be operable). During the emergency situation, potable water will be used to cool the process. In the event of an emergency, Howmet estimates that approximately 76,000 gallons (from castings buildings) will flow to the DSN-01 discharge point, and 44,000 gallons (from alloy buildings) will flow to the DSN-02 discharge point.
5. Total Suspended Solids (TSS) Parameter: Due to occasional historic exceedances of this parameter, RVRSA has granted a higher limit for TSS from its unallocated reserve (750 mg/L rather than 500 mg/L).
6. Parameters of Concern: During the previous and current permit cycle the following parameters were exceeded on occasion: NH<sub>3</sub>-N, TSS, pH, nickel, and silver.
7. Other Parameters: The following parameters limitations have been updated or have been added as per the local limits study dated, dated November 2014, last revised December 2016, and including the April 14, 2017 Addendum; approved by the NJDEP on April 24, 2017, and approved by the RVRSA board on August 10, 2017 and the proposed amendments approved by the RVRSA board on October 12, 2017. **Limitation updated:** CBOD<sub>5</sub>, BOD<sub>5</sub>, total suspended solids (TSS), ammonia-nitrogen (NH<sub>3</sub>-N), arsenic, cadmium, chromium, copper, cyanide, lead, mercury, nickel, and zinc. **Parameters added:** molybdenum
8. Emergency Discharge Plan: Section 27: Emergency Discharge Limitation Plan, has been added to this permit modification request.

#### VARIANCES OR ALTERNATIVES TO PERMIT CONDITIONS:

N/A

#### REGULATIONS APPLICABLE TO THIS PERMIT ACTION:

This permit is issued in accordance with N.J.S.A 58:10A-6f, N.J.A.C. 7:14A-19.8, and 40 CFR Part 403.8. Requirements for the contents of this Fact Sheet are in accordance with N.J.A.C. 7:14A-15.8.



This facility is also subject to 40 CFR 433 – Metal Finishing Point Source Category, Subpart A – Metal Finishing Subcategory and 40 CFR 433.15 – Pretreatment Standards for Existing Sources (PSES).

**INDUSTRIAL PRETREATMENT PROGRAM CONTACT PERSON:**

Additional information concerning this permit may be obtained from Natalie Pisarcik, RVRSA IPP Coordinator, at 973-263-1555 ext. 213.

**TABLE – 1: DISCHARGE LIMITATIONS**

**ARCONIC: HOWMET CASTINGS**

**Sample Location: DSN – 01 (HDC – 1 Manhole)**

| Parameter          | Daily Max. Limit      | Mo. Avg. Limit | Sample Freq.  | Sample-Type |
|--------------------|-----------------------|----------------|---------------|-------------|
| Flow (3)           | Report                | 69,250 GPD     | Continuous    | Metered     |
| BOD <sub>5</sub>   | Report                | Report         | Monthly       | Comp.       |
| CBOD <sub>5</sub>  | 500 mg/L (1) (2)      | Report         | Monthly       | Comp.       |
| TSS                | 750 mg/L (2) (9)      | Report         | Monthly       | Comp.       |
| TDS                | Report                | Report         | Monthly       | Comp.       |
| pH                 | 5.5-9.5 S.U. (1) (7)  | N/A            | Monthly       | Grab        |
| O&G                | 100 mg/L (1)          | Report         | Monthly       | Grab        |
| Phosphorus         | Report                | Report         | Monthly       | Comp.       |
| NH <sub>3</sub> -N | 80 mg/L (1) (2)       | Report         | Monthly       | Comp.       |
| Chromium (Cr)      | 1.3 mg/L (1)          | 0.9 mg/L (4)   | Monthly       | Comp.       |
| Cobalt (Co) (8)    | Report                | Report         | Monthly       | Comp.       |
| Copper (Cu)        | 1.7 mg/L (4)          | 1.1 mg/L (4)   | Monthly       | Comp.       |
| Nickel (Ni)        | 0.8 mg/L (1)          | 0.8 mg/L (1)   | Monthly       | Comp.       |
| Silver (Ag)        | 0.2 mg/L (4)          | 0.1 mg/L (4)   | Monthly       | Comp.       |
| Zinc (Zn)          | 1.3 mg/L (4)          | 0.8 mg/L (4)   | Monthly       | Comp.       |
| TTO                | 1.09 mg/L (4) (5) (6) | Report         | Semi-Annually | C & G       |
| Arsenic (As)       | 0.2 mg/L (1)          | Report         | Semi-Annually | Comp.       |
| Cadmium (Cd)       | 0.4 mg/L (4)          | 0.1 mg/L (4)   | Semi-Annually | Comp.       |
| Lead (Pb)          | 0.4 mg/L (4)          | 0.2 mg/L (4)   | Semi-Annually | Comp.       |
| Molybdenum (Mo)    | 0.3 mg/L (1)          | Report         | Semi-Annually | Comp.       |
| Cyanide            | 0.5 mg/L (1)          | 0.3 mg/L (4)   | Semi-Annually | Grab        |
| Phenols            | Report                | Report         | Semi-Annually | Grab        |
| Mercury (Hg)       | 0.06 mg/L (1)         | Report         | Annually      | Comp.       |

Notes:

(1) Discharge limits are based upon the RVRSA local limits.



- (2) CBOD<sub>5</sub> or TSS concentration exceeding 250 mg/L and NH<sub>3</sub>-N concentration exceeding 40 mg/L are subject to the Surcharge for Wastewaters of Excessive Strength as per Section 8B of this ISCP. Any discharge over the CBOD<sub>5</sub> limit of 500 mg/L, a TSS limit of 750 mg/L, or the NH<sub>3</sub>-N of 80 mg/L will be considered a permit violation and subject to applicable enforcement actions.
- (3) Monthly average of flow is based on a COMBINED (Process and Sanitary) wastewater flow.
- (4) The discharge limits are based upon the Federal Categorical Standards for Metal Finishing Industries, 40 CFR § 433.15 (PSES). A Combined Waste Stream Formula (CWSF) was used to account for the dilution factor (see Table 2 and Table 3).
- (5) The Total Toxic Organics (TTO) list is attached.
- (6) A NON-USE Certification form is attached. This is allowed in lieu of TTO Sampling, pursuant to 40 CFR § 433 regulations. The Permittee may use this form for volatiles, acids, base/neutrals, organics and/or pesticides/PCBs sampling. The sample type is Composite and Grab.
- (7) The pH sample shall be analyzed by a NJDEP certified lab, within 15 minutes of collection of the sample.
- (8) Cobalt is included because of its use in the manufacturing process at Howmet Castings.
- (9) RVRSA has granted a higher limit for TSS from its unallocated reserve (750 mg/L, rather than 500 mg/L), based on historical exceedances of this parameter.

Additional Notes:

The permittee shall notify the RVRSA, at a minimum 10 days in advance, of any Changed Condition, including (+/-) 20% change in the production, operations, reported average water use, discharge streams, discharge volume or discharge quality. The facility is also required to notify regarding introduction of any new waste stream or new pollutant previously not identified.

The Self-Monitoring Report (SMR) is due and shall be received by the RVRSA office on or before the 21<sup>st</sup> day of the month following the sampling month, or next business day (if date shall fall on a weekend and/or holiday). If no pollutant sample is collected or analyzed during a month, then the monthly report shall include at least flow data.



Parameters shall be tested according to monitoring frequency and submitted in accordance to the SMR along with copies of analytical results and the chain of custody. All SMR's submitted must comply and contain the signatory requirement as required under 40 CFR § 403.6 (a)(2)(ii) and it must be signed by a responsible corporate officer as required under 40 CFR § 430.12(l).

Composite samples shall be collected over a twenty-four (24) hour period; programmed to sample every 15 minutes, unless otherwise noted.

"Daily Maximum" limits equals "Monthly Average" limits if only one sampling event is performed during the month, unless otherwise noted.

The "Quarterly" sample period shall correspond to the January-March, April-June, July-September, and October-December quarters.

The "Semi-Annually" sample period shall correspond to the January – June calendar year and the July – December calendar year.

The "Annually" sample period shall correspond to the January – December calendar year.

Copies of manifests for process wastewater trucked offsite for disposal shall be made available for review by our offices.





**TABLE – 2: DISCHARGE LIMITATIONS**

**ARCONIC: HOWMET CASTINGS**

Sample Location: DSN – 02 (Alloy Building Discharge)

| Parameter          | Daily Max. Limit     | Mo. Avg. Limit | Sample Freq.  | Sample-Type |
|--------------------|----------------------|----------------|---------------|-------------|
| Flow (3)           | Report               | 3,750 GPD      | Continuous    | Metered     |
| CBOD <sub>5</sub>  | 500 mg/L (1) (2)     | Report         | Quarterly (5) | Grab        |
| TSS                | 500 mg/L (1) (2)     | Report         | Quarterly     | Grab        |
| TDS                | Report               | Report         | Quarterly     | Grab        |
| pH                 | 5.5-9.5 S.U. (1) (4) | N/A            | Quarterly     | Grab        |
| O&G                | 100 mg/L (1)         | Report         | Quarterly     | Grab        |
| Phosphorus         | Report               | Report         | Quarterly     | Grab        |
| NH <sub>3</sub> -N | 80 mg/L (1) (2)      | Report         | Quarterly     | Grab        |
| Arsenic (As)       | 0.2 mg/L (1)         | Report         | Quarterly     | Grab        |
| Cadmium (Cd)       | 0.4 mg/L (1)         | Report         | Quarterly     | Grab        |
| Chromium (Cr)      | 1.3 mg/L (1)         | Report         | Quarterly     | Grab        |
| Copper (Cu)        | 1.7 mg/L (1)         | Report         | Quarterly     | Grab        |
| Lead (Pb)          | 1.0 mg/L (1)         | Report         | Quarterly     | Grab        |
| Mercury (Hg)       | 0.06 mg/L (1)        | Report         | Quarterly     | Grab        |
| Molybdenum (Mo)    | 0.3 mg/L (1)         | Report         | Quarterly     | Grab        |
| Nickel (Ni)        | 0.8 mg/L (1)         | Report         | Quarterly     | Grab        |
| Zinc (Zn)          | 2.1 mg/L (1)         | Report         | Quarterly     | Grab        |
| Cyanide            | 0.5 mg/L (1)         | Report         | Quarterly     | Grab        |
| Phenols            | Report               | Report         | Quarterly     | Grab        |

Notes:

(1) Discharge limits are based upon the RVRSA local limits.



- (2) CBOD<sub>5</sub> or TSS concentration exceeding 250 mg/L and NH<sub>3</sub>-N concentration exceeding 40 mg/L are subject to the Surcharge for Wastewaters of Excessive Strength as per Section 8B of this ISCP. Any discharge over the CBOD<sub>5</sub> and/or TSS limit of 500 mg/L or the NH<sub>3</sub>-N of 80 mg/L will be considered a permit violation and subject to applicable enforcement actions.
- (3) Monthly average of flow from Alloy Building: 2,750 gallons from cooling towers and 1,000 gallons from sanitary.
- (4) The pH sample shall be analyzed by a NJDEP certified lab, within 15 minutes of collection of the sample.
- (5) Quarterly sampling shall occur during the following months:
  - 2017: January, April, July, October
  - 2018: February, May, August, November
  - 2019: March, June, September, December
  - 2020: January, April, July, October

Additional Notes:

The permittee shall notify the RVRSA, at a minimum 10 days in advance, of any Changed Condition, including (+/-) 20% change in the production, operations, reported average water use, discharge streams, discharge volume or discharge quality. The facility is also required to notify regarding introduction of any new waste stream or new pollutant previously not identified.

The Self-Monitoring Report (SMR) is due and shall be received by the RVRSA office on or before the 21<sup>st</sup> day of the month following the sampling month, or next business day (if date shall fall on a weekend and/or holiday). If no pollutant sample is collected or analyzed during a month, then the monthly report shall include at least flow data.

Parameters shall be tested according to monitoring frequency and submitted in accordance to the SMR along with copies of analytical results and the chain of custody. All SMR's submitted must comply and contain the signatory requirement as required under 40 CFR § 403.6 (a)(2)(ii) and it must be signed by a responsible corporate officer as required under 40 CFR § 430.12(l).

"Daily Maximum" limits equals "Monthly Average" limits if only one sampling event is performed during the month, unless otherwise noted.

The "Quarterly" sample period shall correspond as follows:

- 2017: January, April, July, October



- 2018: February, May, August, November
- 2019: March, June, September, December
- 2020: January, April, July, October

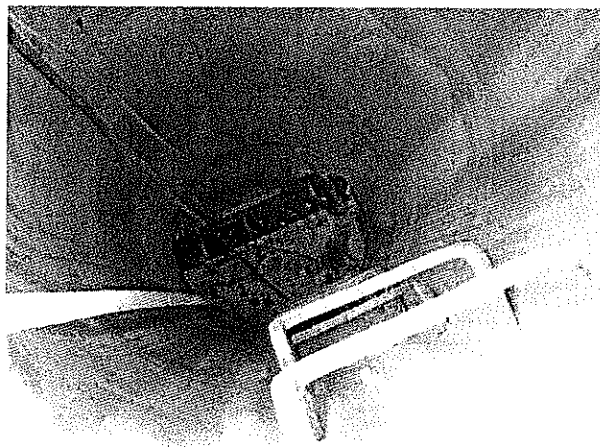
Copies of manifests for process wastewater trucked offsite for disposal shall be made available for review by our offices

**FIGURE 1: Facility Sampling Location**

**ARCONIC - HOWMET CASTINGS**

SAMPLING LOCATION: (Discharge location: DSN – 01)  
HDC – 1 Manhole





**FIGURE 2: Facility Sampling Location**

**ARCONIC - HOWMET CASTINGS**

SAMPLING LOCATION: (Discharge location: DSN – 02)  
Alloy Building Manhole

