

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Inovyn Chlorvinyls Limited

Mercury Storage and Treatment Plant

Runcorn Site Offices

South Parade

Runcorn

Cheshire

WA7 4JE

Permit number

EPR/UP3034JY

Mercury Storage and Treatment Plant

Permit number EPR/UP3034JY

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The operator has applied for a permit to store and treat wastes containing mercury and waste metallic mercury under Schedule 1 Sections 5.3 A(1)(a)(ii) and 5.6A(1)(a)(i) of the EP Regulations. The mercury must be treated due to the closure and decommissioning of the operator's chlor-alkali process, in accordance with the requirements of the chlor-alkali Bref and Council Regulation (EU) 2017/852.

Waste mercury sludges will be processed on site by settlement and dewatering. Waste mercury sludges may also be exported off-site for dewatering and/or retorting prior to return to the site (as metallic mercury) for stabilisation. Metallic mercury will be stabilised by a reaction with sulphur to produce mercury sulphide (referred to as cinnabar – a naturally occurring mineral form of mercury sulphide) in a purpose built unit (referred to as the ECON Unit). The facility may also receive metallic mercury for stabilisation from off-site sources.

The ECON Unit is capable of retorting mercury sludges followed by stabilisation of the resulting mercury, or of accepting metallic mercury directly for stabilisation without the retorting step. The operator is proposing to operate the ECON Unit on metallic mercury. Once initiated, the reaction of mercury and sulphur is exothermic, requiring cooling to be provided. The process excludes oxygen to prevent its reaction with sulphur. Once stabilised, the mercury sulphide waste is bagged and stored on site until an economic load is assembled. It is then sent off-site to a suitable permanent storage facility, such as deep mine disposal.

The operator is also constructing a temporary storage facility for liquid metallic mercury. Temporary storage of metallic mercury waste is permitted under Council Regulation (EU) 2017/852 subject to strict conditions, prior to the eventual treatment and disposal. Such storage must be carried out in accordance with the requirements set out in Council Directive 1999/31/EC (as amended).

Emissions to air from the dewatering and stabilisation processes are passed through carbon filter beds to remove mercury. There are no direct emissions to water from the process.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/UP3034JY/A001	Duly made 05/02/18	Application for a mercury storage and treatment facility.
Additional information received	13/04/18	Response to Schedule 5 Notice dated 15/03/18.
Additional information received	11/05/18	Response to email dated 09/05/18.
Permit determined EPR/UP3034JY (PAS Billing ref. UP3034JY).	14/08/18	Permit issued to Inovyn Chlorvinyls Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/UP3034JY

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Inovyn Chlorvinyls Limited (“the operator”),

whose registered office is

Runcorn Site Hq

South Parade

Runcorn

Cheshire

WA7 4JE

company registration number **04068812**

to operate an installation at

Mercury Storage and Treatment Plant

Runcorn Site Offices

South Parade

Runcorn

Cheshire

WA7 4JE

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Philip Lamb	14/08/2018

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme or other approval issued by the Environment Agency.

1.2 Energy efficiency

- 1.2.1 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.7 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

Temporary storage of metallic mercury

- 2.3.8 For the purposes of temporary storage of metallic mercury, the following requirements shall apply:
- (a) metallic mercury shall be stored separately from other waste;
 - (b) containers shall be stored in collecting basins suitably coated so as to be free of cracks and gaps and impervious to metallic mercury with a containment volume adequate for the quantity of mercury stored;
 - (c) the storage site shall be provided with engineered or natural barriers that are adequate to protect the environment against mercury emissions and a containment volume adequate for the total quantity of mercury stored;
 - (d) the storage site floors shall be covered with mercury-resistant sealants. A slope with a collection sump shall be provided;
 - (e) the storage site shall be equipped with a fire protection system;
 - (f) storage shall be arranged in a way to ensure that all containers are easily retrievable.
- 2.3.9 For the purposes of temporary storage of metallic mercury, the following requirements shall apply to the composition of the mercury:
- (a) mercury content greater than 99.9% per weight;
 - (b) no impurities capable of corroding carbon or stainless steel (e.g. nitric acid solution, chloride salts solutions).
- 2.3.10 For the purposes of temporary storage for more than one year of metallic mercury, the following requirements shall apply to the containers used for the storage:
- (a) containers used for storage of metallic mercury shall be corrosion and shock-resistant. Welds shall therefore be avoided. The containers shall comply in particular with the following specifications:
 - (i) container material: carbon steel (ASTM A36 minimum) or stainless steel (AISI 304, 316L);
 - (ii) containers shall be gas and liquid tight;
 - (iii) the outer side of the container shall be resistant against the storage conditions;
 - (iv) the design type of the container shall successfully pass the drop test and the leakproofness tests as described in Chapters 6.1.5.3 and 6.1.5.4 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.
 - (b) The maximum filling ratio of the container shall be 80% by volume to ensure that sufficient ullage is available and neither leakage nor permanent distortion of the container can occur as a result of an expansion of the liquid due to high temperature.
- 2.3.11 For the purposes of temporary storage for more than one year of metallic mercury, the following requirements shall apply:
- (a) only containers with a certificate complying with the requirements of condition 2.3.12 shall be accepted;
 - (b) only metallic mercury which fulfils the minimum acceptance criteria set out in condition 2.3.9 shall be accepted;
 - (c) containers shall be visually inspected before storage. Damaged, leaking or corroded containers shall not be accepted;
 - (d) containers shall bear a durable stamp (made by punching) mentioning the identification number of the container, the construction material, its empty weight, the reference of the manufacturer and the date of construction;

- (e) Containers shall bear a plate permanently fixed to the container mentioning the identification number of the certificate.
- 2.3.12 The certificate mentioned in condition 2.3.11 shall include the following elements:
- (a) name and address of the waste producer;
 - (b) name and address of the person or corporate body responsible for the filling;
 - (c) place and date of filling;
 - (d) quantity of the mercury;
 - (e) the purity of the mercury and, if relevant, a description of the impurities, including the analytical report;
 - (f) confirmation that the containers have been used exclusively for the transport/storage of mercury;
 - (g) the identification numbers of the containers;
 - (h) any specific comments.
- 2.3.13 For the purposes of temporary storage for more than one year of metallic mercury, the following requirements, or equivalent technical measures agreed in writing with the Environment Agency, shall apply:
- (a) a continuous mercury vapour monitoring system with a sensitivity of at least 0.02 mg mercury/m³ shall be installed in the storage site. Sensors shall be positioned at ground level and head level. This shall include a visual and acoustic alert system. The system shall be maintained annually;
 - (b) the storage site and containers shall be visually inspected by an authorised person at least once a month. Where leaks are detected, the operator shall immediately take all necessary action to avoid any emission of mercury to the environment and restore the safety of the storage of the mercury. Any leaks shall be considered to have significant adverse environmental effects as referred to in Article 12(b);
 - (c) Emergency plans and adequate protective equipment suitable for handling metallic mercury shall be available on site.
- 2.3.14 All documents containing the information referred to in conditions 2.3.9 to 2.3.12 and 2.3.14, including the certificate accompanying the container, as well as records concerning the destocking and dispatch of the metallic mercury after its temporary storage and the destination and intended treatment shall be kept for at least 3 years after the termination of the storage.
- 2.3.15 All temporary storage of mercury for more than one year shall cease by 1st January 2023, unless otherwise agreed in writing by the Environment Agency.
- 2.3.16 The operator shall, for the temporary storage of mercury, establish a register including the following:
- (a) for each shipment of mercury waste received:
 - (i) the origin and amount of that waste;
 - (ii) the name and contact details of the supplier and the owner of that waste.
 - (b) for each shipment of mercury waste leaving the facility:
 - (i) the amount of that waste and its mercury content;
 - (ii) the destination and intended disposal operation of that waste;
 - (iii) a copy of the certificate provided by the operator of the facility undertaking the conversion and, if applicable, the solidification of that waste;
 - (iv) a copy of the certificate provided by the operator of the facility undertaking the permanent storage of the mercury waste that underwent conversion and, if applicable, solidification.

- (c) the amount of mercury waste stored at the facility at the end of each month.
- 2.3.17 The operator shall, as soon as mercury waste is taken out of temporary storage, issue a certificate confirming that the mercury waste was sent to a facility undertaking disposal operations. Once a certificate is issued, a copy shall be transmitted without delay to the owner of the waste.
- 2.3.18 The operator shall, for conversion and, if applicable, the solidification of mercury waste, establish a register including the following:
 - (a) for each shipment of mercury waste received:
 - (i) the origin and amount of that waste;
 - (ii) the name and contact details of the supplier and the owner of that waste;
 - (b) for each shipment of mercury waste that underwent conversion and, if applicable, solidification leaving the facility:
 - (i) the amount of that waste and its mercury content;
 - (ii) the destination and intended disposal operation of that waste;
 - (iii) a copy of the certificate provided by the operator of the facility undertaking the permanent storage of that waste.
 - (c) the amount of mercury waste stored at the facility at the end of each month.
- 2.3.19 The operator shall, as soon as the conversion and, if applicable, the solidification operation of the entire shipment is completed, issue a certificate confirming that the entire shipment of mercury waste has been converted and, if applicable, solidified.
- 2.3.20 Once a certificate is issued, a copy shall be transmitted without delay to the operator of the facility(ies) involved in the temporary storage and transfer of the waste (if any) to and to the owner of the waste.
- 2.3.21 The operator shall, each year by 31st January, transmit the register for the previous calendar year to the Environment Agency.

2.4 Pre-operational conditions

- 2.4.1 The operations specified in schedule 1 table S1.3 shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 table S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) process monitoring specified in table S3.2;

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall

have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 table S3.1 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31st January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production/treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report

assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.6 The operator shall, by 31st May each year, submit to the Environment Agency the following:
- (a) the total amount of mercury waste stored;
 - (b) the total amount of mercury waste sent to individual facilities undertaking the temporary storage, the conversion and, if applicable, solidification of mercury waste, or the permanent storage of mercury waste that underwent conversion and, if applicable, solidification;
 - (c) the location and contact details of each facility referred to in point (b);
 - (d) a copy of the certificate(s) provided by the operator of the facility undertaking the temporary storage of mercury waste, in accordance with Article 14(1) of the Mercury Regulations;
 - (e) a copy of the certificate(s) provided by the operator of the facility undertaking the conversion and, if applicable, the solidification of mercury waste, in accordance with Article 14(2) of the Mercury Regulations;
 - (f) a copy of the certificate(s) provided by the operator of the facility undertaking the permanent storage of mercury waste that underwent conversion and, if applicable, solidification, in accordance with Article 14(3) of the Mercury Regulations.
- 4.2.7 The data referred to in 4.2.6 (a) and (b) shall be expressed using the codes laid down in Regulation (EC) No 2150/2002 of the European Parliament and of the Council.

4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this

information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	Section 5.3 Part A(1)(a)(ii) Disposal or recovery of hazardous waste with capacity exceeding 10 tonnes per day involving physico-chemical treatment.	D9 reaction of metallic mercury with sulphur.	From receipt of wastes containing mercury, treatment of metallic mercury with sulphur. Including storage of mercury sulphide. Treatment capacity less than 10 tonnes/day. Hazardous wastes types as specified in Schedule 2 table S2.2.
AR3	Section 5.3 Part A(1)(a)(ii) Disposal or recovery of hazardous waste with capacity exceeding 10 tonnes per day involving physico-chemical treatment.	D9 settlement, phase separation and filtration prior to treatment on-site or off site.	From receipt of wastes containing mercury, settlement, decanting of contaminated water, filtration and transfer of treated sludge to treatment on-site or off site. Treatment capacity less than 50 tonnes/day. Including transfer of contaminated water to METP. Hazardous wastes types as specified in Schedule 2 table S2.3.
AR3	Section 5.6 Part A(1)(a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes.	D15 storage pending treatment on site or transfer off site.	Temporary storage of wastes containing mercury. Including temporary storage for more than 1 year of metallic mercury. From receipt of wastes containing mercury, to transfer of wastes to treatment on-site or off-site. Hazardous wastes types as specified in Schedule 2 table S2.2.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Form B3 Sections 1, 2, 3 and 4	Duly Made 05/02/2018
Response to Schedule 5 Notice dated 15/03/2018	Response to questions 1 to 11.	13/04/2018
Response to email dated 09/05/2018	Response to questions 1 to 6	11/05/2018

Table S1.3 Pre-operational measures	
Reference	Pre-operational measures
PO1	<p>At least 4 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of waste storage in the metallic mercury storage area the operator shall submit a written report to the Environment Agency containing the following:</p> <ul style="list-style-type: none"> • the anticipated date of commencement for storage operations; • details of any changes made to the design contained in the permit application, and justification for those changes; • a demonstration that the necessary requirements of conditions 2.3.8 to 2.3.15 are in place; and • details of the mercury vapour monitoring arrangements to be implemented. <p>No waste shall be accepted for storage unless the Environment Agency has given prior written permission under this condition.</p>
PO2	<p>At least 4 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of mercury-sulphur treatment in the ECON Unit the operator shall submit a written report to the Environment Agency containing the following:</p> <ul style="list-style-type: none"> • the anticipated date of commencement for mercury-sulphur treatment operations; • details of any changes made to the process design contained in the permit application, and justification for those changes; • a demonstration that the site surfacing and containment infrastructure set out in the application is in place; and • a demonstration that all necessary procedures are in place. <p>No waste shall be treated unless the Environment Agency has given prior written permission under this condition.</p>
PO3	<p>At least 4 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of waste storage and treatment in the Recovery Activities and Storage Area the operator shall submit a written report to the Environment Agency containing the following:</p> <ul style="list-style-type: none"> • the anticipated date of commencement for storage and treatment operations; • details of any changes made to the process design contained in the permit application, and justification for those changes; • a demonstration that the site surfacing and containment infrastructure set out in the application is in place; and • a demonstration that all necessary procedures are in place. <p>No waste shall be accepted for storage or treatment unless the Environment Agency has given prior written permission under this condition.</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

Table S2.2 Permitted waste types and quantities for mercury storage (AR3) and mercury-sulphur treatment (AR1)	
Maximum quantity	Maximum storage capacities: Recovery Activities and Storage Area: 300 tonnes; Metallic Mercury Storage Facility: 300 tonnes.
Waste code	Description
06	Wastes from inorganic chemical processes
06 04	metal-containing wastes other than those mentioned in 06 03
06 04 04*	wastes containing mercury
16	Wastes not otherwise specified in the list
16 03	off-specification batches and unused products
16 03 07*	metallic mercury

Table S2.3 Permitted waste types and quantities for mercury sludge dewatering treatment (AR2)	
Maximum quantity	-
Waste code	Description
06	Wastes from inorganic chemical processes
06 04	metal-containing wastes other than those mentioned in 06 03
06 04 04*	wastes containing mercury

Schedule 3 – Emissions and monitoring

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Process Vent Point as shown on drawing ref 607945 of the application]	Mercury processing unit vent	--	--	--	--	--

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Mercury processing unit vent A1	Mercury	Once per shift during mercury treatment.	Portable mercury analyser with a suitable limit of detection.	Any indication of mercury breakthrough will be dealt with by replacement of the exhausted carbon bed with a fresh bed.
Mobile mercury abatement systems within the Recovery Activities and Storage Area	Mercury	Once per shift during mercury treatment.	Portable mercury analyser with a suitable limit of detection.	Any indication of mercury breakthrough will be dealt with by replacement of the exhausted carbon bed with a fresh bed.

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
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Table S4.2 Annual production/treatment	
Parameter	Units
Total of metallic mercury reacted with sulphur	Tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Total raw material used	Annually	tonnes

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	14/08/2018
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	14/08/2018
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	14/08/2018

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No. 1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“Industrial Emissions Directive” means Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“Mercury Regulations” means Regulation (EU) 2017/852 of the European Parliament and of the Council of 17 May 2017 on mercury.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

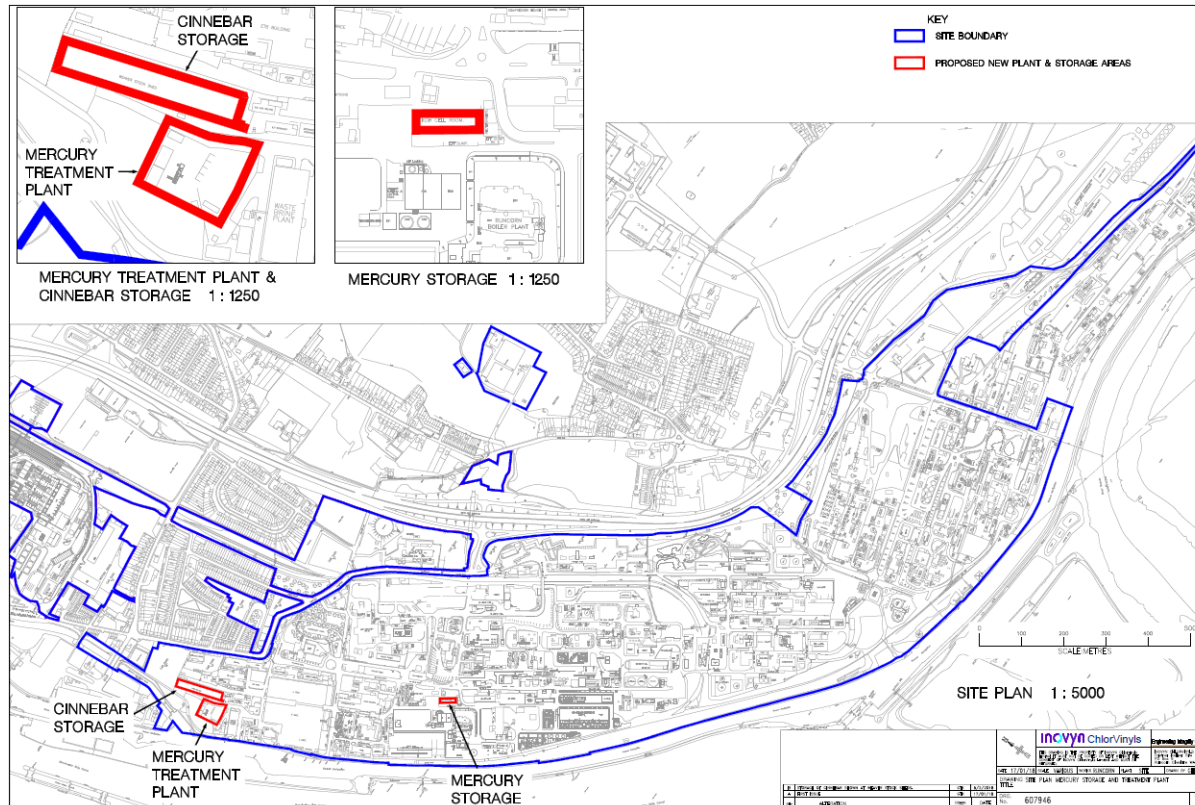
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan



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END OF PERMIT

Permit number
EPR/UP3034JY