

3. Substance(s) covered by application

(3a) Please list named substances falling within Part 1 of Schedule 2 to the 2015 (No 2) Regulations first, then list any substances falling within the categories in Part 2 of Schedule 1, finally list substances falling within the description in Part 3.

(3b) Substances falling within Parts 1 and 2 of Schedule 1 to the 2015 (No 2) Regulations may be listed under the relevant category or description or named specifically.

- Where a substance falls within Part 1 and 2, please list under Part 1 only
- Where a substance falls within more than one category in Part 2 please list under the category which has the lowest controlled quantity.
- Where a substance falling within Part 1 or 2 also falls within Part 3 please list under
- the part that has the lowest controlled quantity.

Name or relevant Category or Description of Substance	Part and Entry Number in Schedule 2 to the 2015 (No 2) Regulations	Do you have a current consent* in respect of this substance?	If Yes, state quantity for which consent in respect of this granted.	Maximum quantity proposed to be present in tonnes.
SODIUM CYANIDE	Part 1, H1 ACUTE TOXIC	NO		19.7

*Hazardous Substance Consent.

4. Manner in which substances(s) are to be kept and used

For each substance, category or description of substance, covered by the application, please provide the following information, referring to the substance location plan where appropriate.

(4a) Insert substance entry number in column (1) below and tick whichever columns (2) and (3) is appropriate:

Table B		
Part and entry number in Schedule 1 of the 2015 (No 2) Regulations.	Storage Only	Stored and involved in an industrial process
PART 1, H1 ACUTE TOXIC	-	✓

(4b) For each vessel to be used for storing the substance(s) please give the following Information:

Vessel No. (1)	Entry Substance(s) to be stored	No. Installed above ground (2) (Yes/No)	Buried (Yes/No)	Mounded (Yes/No)	Maximum Capacity (Cubic Metres)	Highest vessel design temperature
SEE APPENDIX 1						

5. Additional Information

(5a) If you have existing hazardous substances consents as referred to in Table A please enclose a copy of each consent with this application.

(5b) Has any application for hazardous substances consent or planning permission relating to the application site been made which has not yet been determined? YES.

(5c) Will any such application be submitted at the same time as this application? THE PLANNING APPLICATION WAS SUBMITTED ON 27TH NOVEMBER 2017.

(5d) The main activities to be carried out on or proposed to be carried on, over or under the land to which the application relates:

The main activities to be carried out on site are as follows:

- an underground gold mine;
- a mineral processing plant;
- a dry stack facility (DSF) for storage of waste rock from the mine workings and filtered tailings material from the process plant.

Cyanide is used in the mineral processing plant.

(5e) How and where each relevant substance is to be kept and used:

Drawings S06 and S07 show the layout of the process building and the location of the secure cyanide store inside the building.

Sodium cyanide will be managed in accordance with both legislative requirements and the International Cyanide Management Institute (ICMI) Code (the Code) guidelines. Details of the Code are available at www.cyanidecode.org. This voluntary Code represents best practice for the use of cyanide in the mining industry. Some of the standards set out in the Code are more restrictive than those specified in legislation. In order to comply with the Code mine sites must adhere to 9 “principles”, and 31 “standards of practice” during all of the relevant activities, including transport to site, storage, use and disposal of residues.

The nine standards within the Code are as follows:

- Production,
- Transportation,
- Handling and Storage,
- Operational,
- Decommissioning,
- Worker Safety,
- Training,
- Emergency Response and
- Dialogue

Signatories to the Code undertake to be audited under the Code guidelines and agree to have their audits placed on the ICMI website for public review. The Code is internationally recognised as a method of demonstrating best practice.

On arrival at the plant the sodium cyanide will be unloaded by trained staff and will be placed in a dedicated secure storage area inside the processing building. Sodium cyanide will be stored on a concrete surface within a secure and dedicated bunded area in the process plant building. No other materials will be stored within the cyanide storage area.

Cyanide will only be transferred to the mixing area from the secure storage area by trained staff. The cyanide will be mixed in a dedicated mixing tank, already containing water and lime (for pH control), to prepare the solution for the CIL circuit. Local air extraction will be provided above the loading point for the mixer so that, should any fume be released during loading, it will be drawn into the air extraction system. The use of briquettes minimises any potential for emissions to air at this point.

The cyanide will be utilised in the carbon in leach process, where it is used to leach gold from the mineral. The gold cyanide complex will combine with the carbon and is released back into a concentrated solution during the carbon strip process. The concentrated solution is then treated by electro winning to recover the gold. Careful controls will be applied throughout the process, including monitoring of the pH and cyanide levels. Following the extraction of the gold, the cyanide in the solution will be destroyed in the detoxification plant, adjacent to the processing building.

Appendix 1 lists all parts of the process where cyanide may be present and provides an indication of the concentration of cyanide in solution during each part of the process.

(5f) How each relevant substance is proposed to be transported to and from the land to which the application relates

Cyanide will be transported to site by road using an authorised distributor and under the provisions of The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (Northern Ireland) 2010. The sodium cyanide arriving on site will be in solid form as briquettes within triple containment (polypropylene woven supersack, sealed plastic (polyethylene) wrapping and protected by wooden crates) and also within locked shipping containers that are approved to carry controlled substances. This packaging meets United Nations standards and is used for the transportation of NaCN worldwide.

Wherever possible only hauliers who are signatories to the Code will be used. Where this is not possible DGL will undertake an initial audit of the haulier to ensure that they are compliant with international best practice, including that set out in the Code and Northern Ireland legislation. The Code transportation audit, for example, includes vehicle maintenance, tracking vehicles, driver communications, driving training etc. DGL will also carry out regular review audits to ensure continued compliance. All hauliers will be licensed for the carriage of dangerous goods.

Used empty packaging will be rinsed within a secondary containment area at the plant site and returned to the manufacturer where possible or disposed of in an appropriate manner. Rinsing will take place under the supervision of the processing manager or designated responsible site staff.

Cyanide will be transported via an agreed route. The route will be surveyed to ensure that road conditions are suitable for hazardous goods transportation. Road conditions include elements such as road camber, security, communication blackout spots, emergency response procedures and equipment. (see www.cyanidecode.org for details of the audit requirements).

(5g) The vicinity of the land to which the application relates, where such details are relevant to the risks or consequences of a major accident.

The enclosed receptor plans show the location of residential and commercial properties in the vicinity of the site, which might be at risk in the unlikely event of a major accident

(5h) The measures taken or proposed to be taken to limit the consequences of a major accident

Emergency Preparedness and Response Plan and Training

DGL will maintain an emergency preparedness and response plan (EPRP) and this will be reviewed on a regular basis to ensure that it remains fit for purpose and takes account of any developments. The Cyanide Management Plan prepared for the site gives guidance on the preparation of the EPRP in accordance with the Code.

All staff will receive regular training to ensure that they understand the controls necessary for safe storage and use of cyanide and what to do should an incident occur. Records of training will be maintained to ensure that all staff receive initial training and refresher training as required.

The Emergency Response Team (ERT) will receive additional training in neutralisation, decontamination and first aid procedures and will be required to pass a written and practical test to demonstrate that they are able to apply their training.

The ERT will be led by an emergency response co-ordinator (ERC) who will co-ordinate the response and liaise with the emergency services and other relevant third parties as applicable.

An ERC will be on call 24 hours a day 365 days a year. Should a cyanide related incident occur the duty ERC will be contacted immediately and they will co-ordinate the emergency response.

Medical oxygen and appropriate antidotes will be stored on site and members of the ERT will be trained in their proper administration and use.

Emergency drills will be carried out at least annually, simulating one or more cyanide release scenarios and ensuring that staff know how to respond. Each drill will be evaluated and records will be kept so that any lessons learned can be fed through to improvements in the EPRP.

DGL will work with off-site responders, such as the local police and fire-fighters, both in the vicinity of the site and along transport routes, to make them aware of the nature of potential cyanide related incidents and the possible need for their assistance in the event of an emergency.

Essential equipment such as spill kits, PPE, traffic control signage and first aid supplies will be maintained on site. An inventory will be maintained and checked at regular intervals to ensure that the site and any vehicles used to respond to an emergency are properly equipped. Equipment will be inspected and tested at least once a year to ensure that it remains fit for purpose.

Emergency Control Measures

Should one of the detoxification tanks fail to operate correctly all waste will be transferred to the other detoxification tank. In the unlikely event that both tanks fail the material can be returned to the CIL circuit to ensure that output from the detoxification plant does not lead to any environmental non-compliance further down the process chain.

Where the pH falls below the set point at any part of the process or should HCN be detected additional lime or sodium hydroxide will be added to raise the pH and keep free cyanide in solution and prevent further emissions. In addition cyanide dosing will be automatically shut down, preventing any more cyanide from being added to the system.

Any spillage of cyanide solution on site will be immediately treated with sodium hydroxide or lime to prevent the formation of HCN. The spillage will then be cleared by trained staff and the materials will be placed in a sealed container. Spillage of dry sodium cyanide will likewise be subject to immediate clean up and will be placed in sealed containers.

Should there be any spillage of cyanide during delivery to site DGL will arrange for the area to be immediately secured and air quality monitoring will be initiated. Should the cyanide be present on soils or other uncontained ground this will be over-excavated; that is a portion of the underlying soil or aggregate will be removed to ensure that all residual cyanide has been captured.

Where practical, spilled materials will be returned to the process or directed to the detoxification tanks. Where, for some reason, this is not possible the materials will be removed in sealed containers and sent to an appropriate permitted waste treatment or waste disposal facility.

Should there be a leak from a pipe or tank this will be isolated by closing down the control valves, preventing any further material entering the damaged pipe or vessel. Spares will be kept on site and the valve will not be reopened until repairs have been carried out and checked by a competent member of staff.

We* hereby apply for hazardous substances consent in accordance with the proposals described in the application.



Signed: _____ FOR TURLEY

_____ Date: 21st December 2017

On behalf of: DALRADIAN GOLD LIMITED

(Insert name of applicant if signed by an agent)

NOTES

(a) The “**2015 No 2 Regulations**” are The Planning (Hazardous Substances) (No. 2) Regulations (Northern Ireland) 2015.

(b) The “**controlled quantity**” means the quantity specified for that substance in Column 2 of Parts 1, 2 or 3 of Schedule 2 to the 2015 Regulations, calculated in accordance with the notes to that Schedule.

(c) For Part 3, state the part only.

**Planning Act (Northern Ireland) 2011, section 109(2)
The Planning (Hazardous Substances) (No.2) Regulations (Northern Ireland)
2015, (Regulation 7)**

Certificate A

I hereby certify that the accompanying application / appeal* is made on behalf of

~~Dalradian Gold Limited~~ _____ (Name of applicant/appellant*) who is in actual possession of every part of the land to which the said application/appeal* relates and is entitled to a fee simple absolute/a fee tail/a life estate/a tenancy of which at least 40 years remain unexpired in the land*.

OR

Certificate B

I hereby certify that the accompanying application / appeal* is made on behalf of

~~Dalradian Gold Limited~~ _____ (Name of applicant/appellant*) who is the trustee of a trust or settlement which effects every part of the land to which the said application / appeal* relates, and that at the date of application / appeal*:

- (a) A beneficiary under the trust or settlement is in actual possession of every part of the land; and
- (b) no person other than a beneficiary under the trust or settlement is entitled to enter into the actual possession of any part of the said land within the period of 40 years.

OR

Certificate C

I hereby certify that the requisite notice of the accompanying application / appeal* is made on

behalf of ~~Dalradian Gold Limited~~ _____ (Name of applicant/appellant*) to any person who, at the beginning of the period of 21 days ending with the date of the said application / appeal* was, in relation to all or any part of the land affected by the application / appeal*.

- (a) a person in actual possession;
- (b) the trustee of a trust or settlement where the beneficiary under the trust or settlement was in actual possession and no other person other than such a beneficiary was entitled to enter into actual possession within a period of 40 years.
- (c) A person (not being a person falling within (a) or (b)) entitled to enter into actual possession within a period of 40 years

¹ Hazardous Substances Consent Form 3 is an additional form and should be completed in conjunction with the P1 form (application for permission to develop land).

The persons upon whom notice was served are: *(continue on a separate sheet if necessary)*

<u>Name and Address</u>	<u>Interest</u>	<u>Date of service of notice</u>
Michael Clarke	Landowner	21 December 2017
231 Crockanboy Road		
Gortin, Omagh		
BT79 7QP		

OR

Certificate D

1. I hereby certify that the person making the accompanying application / appeal*:

- (a) is unable to issue either Certificate A or B;
- (b) has made due enquiries and is of the opinion that he / she is unable to issue a certificate for the following reason:

- (c) has given the requisite notice of the said application / appeal* to the under mentioned persons who, at the beginning of the period of 21 days ending with the date of said application / appeal*, were in the actual possession of all or part of the land to which the application relates, namely:

<u>Name and Address</u>	<u>Date of service of notice</u>

2. Notice of the application / appeal* has been published in the:

_____ (title of newspaper) on
_____ (date of publication) and a copy of the
newspaper in which the notice appeared is enclosed.

Signature of Applicant or Agent: **Sheila Murphy**
Digitally signed by Sheila Murphy
DN: dc=mul, o=rsa, ou=Sheila, ou=Libra, cn=Sheila
Murphy, email=sheila.murphy@urley.co.uk
Date: 2017.12.21 12:22:59 Z

Date: 21 December 2017

**delete as appropriate*

Notice of Application for Hazardous Substance Consent

To: Michael Clarke
231 Crockanboy Road
Gortin, Omagh
BT79 7QP

Take Notice that an application under the Planning Act (Northern Ireland) 2011 is being made to the Council, or as the case may be, the Department for Infrastructure by:

(insert name of applicant)

Dalradian Gold Limited

for hazardous substance consent to: *(insert*

description of proposed development / works)

to store/use Sodium Cyanide

on lands at:

(insert address or location of proposed development / building)

LANDS TO THE NORTH OF CROCKNABOY ROAD, APPROXIMATELY 1KM TO THE NORTH WEST OF GREENCASTLE; HAZARDOUS SUBSTANCE TO BE STORED AND USED WITHIN THE PROCESSING PLANT AT GRID REFERENCE: 258958, 384494

If you wish to make representations about the application you should make them in writing to the Council, or as the case may be, the Department for Infrastructure within 14 days from the date of service of this Notice.

Signature of applicant or agent

Sheila Murphy

Digitally signed by Sheila Murphy
DN: dc=local, dc=rita, ou=Belfast, ou=Users, cn=Sheila Murphy,
email=sheila.murphy@burley.co.uk
Date: 2017.12.21 13:50:14 Z

Date 21 December 2017

Representations should be sent to the following address:

*(insert name / address of
relevant Planning Office
or Department, if appropriate)*

Fermanagh and Omagh District Council
Planning Department
16 High Street
Omagh
Co Tyrone, BT78 1BQ

