Emergency Planning and Community Right to Know Act (EPCRA)

Section 313 Reporting Plan (TRI Plan)

June 2018

Prepared by:

Rosemont Copper Company
### Monitoring and Reporting Schedule

<table>
<thead>
<tr>
<th>Task Schedule</th>
<th>Purpose/Description/Timing</th>
<th>Pre-Construction Period/Construction Phase</th>
<th>Active Mining Phase/Operations Phase</th>
<th>Closure Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Standard Operating Procedures (SOPs)</td>
<td>Outline procedures to comply with EPCRA Section 313 Reporting Plan (TRI Plan). Complete the necessary process diagrams, report calculations, applicable exemptions, and data needs to complete Form R. One time development of SOPs.</td>
<td>X</td>
<td>D AN A</td>
<td>D AN A</td>
</tr>
<tr>
<td>Maintain data for Form R report</td>
<td>Use MSDSonline or other means to track TRI chemicals for reporting requirements</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Update TRI Plan</td>
<td>Within six (6) months of change in facility design, construction, operation, and/or maintenance</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Submit the Form R</td>
<td>To EPA by July 1st (automatically submitted to ADEQ when using U.S. EPA’s TRI-Made Easy web (TRI-MEweb) software)</td>
<td>X(^1)</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

\(D = \text{Daily}; A = \text{Annually}; AN = \text{As Needed}; \quad ^1 = \text{Rosemont does not anticipate submitting “Form R” forms during construction.}\)
## Revision Log

<table>
<thead>
<tr>
<th>Revision Number</th>
<th>Revision Lead</th>
<th>Purpose of Revision</th>
<th>Revision Date</th>
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<tr>
<td>1</td>
<td>Rosemont</td>
<td>Updated plan date from original June 2017 MPO submittal, added revision number.</td>
<td>March 2018</td>
</tr>
<tr>
<td>2</td>
<td>Rosemont</td>
<td>Minor format standardization text edits.</td>
<td>June 2018</td>
</tr>
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<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>ADEQ</td>
<td>Arizona Department of Environmental Quality</td>
</tr>
<tr>
<td>ARS</td>
<td>Arizona Revised Statute</td>
</tr>
<tr>
<td>CAA</td>
<td>Clean Air Act</td>
</tr>
<tr>
<td>CE</td>
<td>Credible Evidence</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>EPA</td>
<td>U.S. Environmental Protection Agency</td>
</tr>
<tr>
<td>EPCRA</td>
<td>Emergency Planning and Community Right to Know Act</td>
</tr>
<tr>
<td>LEPC</td>
<td>Local Emergency Planning Commission</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet</td>
</tr>
<tr>
<td>NAICS</td>
<td>North American Industry Classification System</td>
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<tr>
<td>NO3</td>
<td>Nitrate Ions</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollutant Discharge Elimination System</td>
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<tr>
<td>OSHA</td>
<td>Occupation Health and Safety Act</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent Bioaccumulative Toxic</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>RMP</td>
<td>Risk Management Plan</td>
</tr>
<tr>
<td>SDS</td>
<td>Safety Data Sheet</td>
</tr>
<tr>
<td>SIC</td>
<td>Standard Industrial Classification</td>
</tr>
<tr>
<td>TRI</td>
<td>Toxic Release Inventory</td>
</tr>
<tr>
<td>TRI MEweb</td>
<td>Toxic Release Inventory Made Easy Web</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
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1.0 EXECUTIVE SUMMARY

Section 313 of Title III of the Superfund Amendments & Reauthorization Act (SARA Title III) of 1986 is commonly referred to as the Toxic Chemical Release Inventory or TRI. SARA Title III, also known as the Emergency Planning and Community Right-to-Know Act (EPCRA), establishes requirements for Federal, state and local governments, Indian Tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals in individual facilities, their uses, and releases into the environment. States and communities, working with facilities, can use the information to improve chemical safety and protect public health and the environment.

EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. The TRI requirements of SARA Title III Section 313 are codified in Title 40 Code of Federal Register (CFR) Part 372 (40 CFR 372). In particular, 40 CFR 372.22 provides that a facility is subject to TRI reporting if it meets three criteria:

- has ten or more full-time employees (or the equivalent of 20,000 hours per year),
- is a “covered” industry based on its primary North American Industry Classification System (NAICS) Code or is a federal facility, and
- manufactures (including imports), processes, or otherwise uses a listed toxic chemical or chemical compound above a certain amount based on the activity for that toxic substance.

Facilities subject to TRI reporting must complete and submit a Toxic Chemical Release Inventory Form annually for each of the more than 600 TRI chemicals that are manufactured, or otherwise used, that are above the applicable threshold quantities.

- Chemicals covered by the TRI program are those that cause one or more of the following:
  - Cancer or other chronic human health effects
  - Significant adverse acute human health effects
  - Significant adverse environmental effects

These chemicals are listed in the Code of Federal Regulations (40 CFR 372.65 and 40 CFR 372.28). Manufacturers, processors, sellers, or otherwise distributors of products containing toxic chemicals have notification obligations to persons accepting these chemicals.

With regard to the Rosemont Copper Project (Project), this facility is anticipated to meet all of the criteria listed above. Therefore, the owner/operator of the Rosemont Project is subject to reporting requirements and notification obligations set forth under EPCRA Section 313. Again, the Rosemont Project will meet all of the following criteria:

- The facility has 10 or more full-time employee equivalents (i.e., a total of 20,000 hours or greater; see 40 CFR 372.3);
- The facility is included in a North American Industry Classification System (NAICS) code listed in Table I found on the EPA website for TRI reporting; and
- The facility manufactures (defined to include importing), processes, or otherwise uses any EPCRA Section 313 chemical in quantities greater than the established threshold in the course of a calendar year.

According to Question Number 51 of EPA's EPCRA Section 313 Questions and Answers (EPA, 1998) regarding activity thresholds, toxic chemicals used in construction prior to the onset of operations need...
not be considered towards any activity threshold. Once mining activities start, processing thresholds of 25,000 pounds of material will apply to any chemicals that are not exempt. However, because processing encompasses extraction activities, reporting may be required prior to the start of production operations.
2.0 INTRODUCTION

The Emergency Planning and Community Right-to-Know Act (EPCRA) Toxic Release Inventory (TRI) Reporting Plan (TRI Plan) will be implemented for all phases of the Project: Pre-Construction Period, Construction Phase, Active Mining Phase, Operations Phase, and Final Reclamation and Closure Phase (Closure Phase), although reporting is not expected to start until the active mining and operations phase. This TRI Plan was developed for the Rosemont Project in direct response to federal and state EPCRA requirements.

Facilities located in the State of Arizona are required to meet the federal TRI reporting requirements if they meet the federal filing thresholds. Arizona facilities must file a federal TRI form (even if they are outside of the federal requirements for North American Industry Classification System (NAICS) Code and number of employees) if:

- They generate an average of 1,000 kilograms (converts to 2204.62 lbs.) or more per month of hazardous waste in a calendar year, or
- They generate an average of one kilogram or more per month of acutely hazardous waste in a calendar year.

Arizona facilities are required to send their TRI reports to Arizona Department of Environmental Quality (ADEQ) under Arizona Revised Statutes (ARS) Title 49, Chapter 5, Article 4, Section 49-961 and Section 962. However, in the interest of pollution prevention, ADEQ now receives Arizona TRI forms electronically from the EPA when a facility submits them using the U.S. EPA's TRI-Made Easy web (TRI-MEweb) software. Therefore, ADEQ does not require facilities to submit hard copies of the TRI report to ADEQ if they submit TRI forms using the EPA TRI-MEweb software.

SARA Title III Section 313 EPCRA and ARS Title 49, Chapter 5, Article 4, Section 49-692 reporting requires Rosemont to evaluate on-site activities, document all calculations regarding the release of TRI Program chemicals, and submit reports and provide notification for chemicals meeting the thresholds.

2.1 DESCRIPTION OF PLAN

The overall objective of the TRI Plan is to describe the EPCRA Section 313 (TRI) obligations for the Project activities to ensure regulatory compliance. The body of the Plan describes:

- Section 3.0: Regulatory and Permit Information;
- Section 4.0: Operations and Process Covered under EPCRA Section 313;
- Section 5.0: Substances Covered under EPCRA Section 313;
- Section 6.0: Adaptive Management;
- Section 7.0: Plan Maintenance and Revision; and
- Section 8.0: References.

2.2 ROSEMONT'S ENVIRONMENTAL HEALTH AND SAFETY POLICY

In 2014, Hudbay Minerals, Inc. (Hudbay) purchased Augusta Resource Corporation, the parent company of the Rosemont Copper Company (Rosemont). Since then, Hudbay has provided oversight and corporate management of Rosemont. Rosemont is part of Hudbay's Arizona Business Unit.

It is Hudbay's policy to explore for, mine and produce metals in an environmentally responsible manner, while maintaining a safe and healthy workplace. Hudbay is committed to the control of risk to achieve a high level of occupational health and safety and to the protection of the environment.

To fulfill this commitment, Hudbay actively engages in:
• Developing, implementing and continually improving the effectiveness of safety, health and environmental management systems;

• Meeting applicable legal and regulatory safety, health and environmental requirements, policies and codes of practice;

• Reducing the risk of injury or occupational health exposure;

• Developing and maintaining a culture of environmental responsibility and an awareness of the primary importance of safety and health;

• Using sustainable practices that avoid adverse effects on the environment of the communities in which we operate;

• Monitoring effectiveness and reviewing safety, health and environmental programs, objectives and targets; and

• Providing adequate resources for safety, health and environmental programs.

• See Exhibit 1 showing Hudbay’s, Arizona Business Unit, Environmental Health and Safety Policy.

Hudbay is also committed to producing and sharing with stakeholders an annual corporate social responsibility report, which demonstrates our commitment to continuous measurement and improvement of our environmental, safety and health performance.

Each operating facility must maintain a certified Environmental Health and Safety Program (EHS) management system, or achieve certification of management systems within two years of either commencing production. Pending such certification operations, the facility must implement practices and procedures designed to ensure the health and safety of its employees and contractors, and the protection of the environment.

2.3 PROJECT AND ENVIRONMENTAL OBLIGATIONS

Rosemont is developing an open-pit copper mining and mineral processing facility in the Santa Rita Mountains approximately 30 miles southeast of Tucson, Arizona in Pima County (see Figure 1). The property is on the west side of Highway 83 and approximately 16 miles south of the I-10/ SR 83 interchange, in Pima County, Arizona. Operations at the site will include conventional crushing and flotation of sulfide ore to produce copper and molybdenum concentrate, which will be transported off-site for further processing.

As part of Rosemont’s obligations to meet environmental regulatory requirements, this TRI Plan was developed and will be implemented based on the threshold requirements described. This TRI Plan describes, in sufficient detail, the review necessary to meet the requirements for the submission of information relating to the release of toxic chemicals under 40 CFR Part 372 and reporting requirements in accordance with Arizona Revised Statutes (A.R.S.) 49-962.

Coordination with Rosemont’s Product Review Plan (Appendix E of the Materials Management Plan, MPO Volume II-p) which uses MSDSonline will track and quantify TRI elements and compounds producing a list of chemicals for Form R reporting (see Section 5.5 for discussion on Form R). (also see Rosemont’s Hazard Communications Program Plan (MPO Volume II-n).

As discussed below, a number of EPA programs require the collection of chemical release and waste management information. Many of these programs have varying requirements for who must report, what information must be reported, and how often they must report. There is considerable overlap between facilities regulated by these programs and the facilities that report under EPCRA Section 313 (TRI) obligations.
For instance, the Oil Pollution Act (OPA) of 1990 includes national planning and preparedness provisions for oil spills that are similar to EPCRA provisions for extremely hazardous substances. Plans are developed at the local, state and federal levels. The OPA plans offer an opportunity for Local Emergency Planning Commissions (LEPCs) to coordinate their plans with area and facility oil spill plans covering the same geographical area.

The 1990 Clean Air Act (CAA) Amendments require the EPA and Occupational Health and Safety Administration (OSHA) to issue regulations for chemical accident prevention. Facilities that have certain chemicals above specified threshold quantities are required to develop a risk management program to identify and evaluate hazards and manage those hazards safely. Facilities subject to EPA's Chemical Accident Prevention regulations must submit a risk management plan (RMP) summarizing the facilities program. At this time, it is not expected that the Rosemont facilities will meet the thresholds requiring a RMP.

2.4 ROLES AND RESPONSIBILITIES

This section describes the responsibilities of the Project’s Director of Environment, Environmental Manager, Environmental Management System Specialist and the Environmental Specialist regarding execution of this TRI Plan (see Table 1 for list of personnel assigned to these positions).

2.4.1 Director, Environment

The Director, Environment is responsible for the following items:

- Reviewing protocols and procedures associated with the development of this TRI Plan.

2.4.2 Environmental Manager

The Environmental Manager is responsible for the following items:

- Providing oversight of required process reviews, report calculations, applicable exemptions, and data input into the Form R report.

- Ensuring this topic is covered in employee environmental training.

2.4.3 Environmental Management System Specialist

The Environmental Management System (EMS) Specialist is responsible for the following items:

- Providing technical assistance and guidance to the Environmental Manager in developing reporting and recordkeeping guidelines to ensure safe procedures for executing the required obligations.

- Oversight on data collection and coordination with other programs.

- QA/QC reviews and approval for TRI Plan revisions and amendments.

2.4.4 Environmental Specialist

The Environmental Specialist is responsible for the following items:

- Completing the necessary process diagrams, report calculations, applicable exemptions, and data input into the Form R report.

- Assuring that only those designated as Inspectors perform the given tasks and that tasks are carried out properly.

- Maintaining data and Form R reports in the Project office for agency personnel and staff to review.
• Submitting the Form R using applicable software to EPA after calculations have been reviewed and approved by the Environmental Manager.
3.0 REGULATORY AND PERMIT INFORMATION

This TRI Plan has been prepared to meet the requirements of 40 CFR Part 372 as well as ARS Title 49, and supersedes all earlier plans and versions. This TRI Plan may not follow the exact order of 40 CFR Part 372 or ARS Title Article 4, Section 49-962. These criteria, as they relate to the Project and TRI reporting, are discussed in detail below.

3.1 FEDERAL REGULATIONS

The TRI Reporting Plan rule is part of the Environmental Protection Agency’s (EPA) program to allow state and local planning for chemical emergencies, provide for notification of emergency releases of chemicals, and address communities right-to-know about toxic and hazardous chemicals under 40 CFR Part 372.

A facility is covered under the TRI rule if it:

- has ten or more full-time employees (or the equivalent of 20,000 hours per year),
- is a “covered” industry based on its primary SIC/NAICS Code or is a federal facility, and
- manufactures (including imports), processes, or otherwise uses a listed toxic chemical or chemical compound above a certain amount based on the activity for that toxic substance.

3.1.1 Employee Threshold

Throughout the Project life, Rosemont will calculate the number of full-time employees by totalling the hours worked during the calendar year by all employees, including contract employees, and dividing that total by 2,000 hours.

3.1.2 Standard Industrial Classification (SIC) Code

The Project must perform operations classified in certain Standard Industrial Classification (SIC) major group or industry code listed in 40 CFR 372.23(a), for which the corresponding North American Industry Classification System (NAICS) subsector and industry codes are listed in 40 CFR 372.23(b) and (c). Covered SIC Code 10 applies to all metal mining operations, with the exception of SIC 1081 (metal services), SIC 1011 (iron ore), and SIC 1094 (uranium-radium-vanadium ore). A SIC Code and NAISC Code 212234 has been assigned to the Project.

3.1.3 NAISC Code for Copper Operations

Once operations start, the Project is expected to qualify as a facility that manufactures (defined to include importing), processes, or otherwise uses an EPCRA Section 313 chemical in quantities greater than the established threshold in the course of a calendar year. During construction, the threshold for otherwise use of materials may be exceeded; however, unless qualifying activities exceed thresholds elsewhere on the property, EPA has clarified in question 51 that construction is not a qualifying event for reporting purposes (EPA, 1998).

3.2 STATE REGULATIONS

State regulations dictate the person who owns or operates a facility shall file a toxic data report on July 1st for the preceding calendar year if any of the following apply:

- During the preceding year, the owner or operator was required to file an annual toxic chemical release form for the facility pursuant to section SARA Title III 313, or
- The facility generated an average of one kilogram per month of acutely hazardous waste as defined in 40 CFR part 261, or an average of 1000 kilograms per month of hazardous waste
in a calendar year. Exclusive of an episodic, accidental or remediation related release or occurrence, or

- The facility shall file the report prescribed in subsection A on July 1st each year for the preceding calendar year until the facility ceases operation, the facility does not meet the above requirements.

- The report form required in this section shall include both the report form required by the US EPA pursuant to 42 USC section 13106 and any annual progress report required to be submitted pursuant to Arizona Revised Statute (ARS) Title 49, Chapter 5, Article 4, and Section 49-692.
4.0 OPERATIONS AND PROCESSES COVERED UNDER EPCRA SECTION 313

4.1 AUXILIARY FACILITIES

Support facilities, which may be separately located but solely support the Project’s operations, assume the same SIC/NAICS Code. Warehouse and research and development facilities that support the Project are classified under Rosemont's SIC/NAICS Code. Other auxiliary facilities expected at the Project include maintenance buildings, offices, lunchrooms, tool rooms, restrooms, storage tanks, vehicle fuel stations, administration buildings, guard building, truck scales, employee change house (housing health and safety offices, employee training room, and ambulance garage), truck wash facility, truck shop building, sample preparation building, landfill, wet and metallurgical laboratory.

4.2 REPORTING FACILITY

The Project's reporting under EPCRA Section 313 must be based on all activities within the contiguous property and is facility specific. Activities within a single facility, as defined as all buildings, equipment, structures, and other stationary components located on a single site or on contiguous or adjacent property under common ownership or operations, must report (40 CFR 372.3). Person is defined as either the owner or operator of the facility.

4.3 CHEMICALS USED DURING CONSTRUCTION OF THE PROJECT

EPCRA Section 313 reporting requirements apply to facilities meeting the applicability criteria discussed above. During the Project's construction, and prior to the onset of operations, toxic chemicals are otherwise used to construct and install process equipment.

However, the toxic chemicals used in construction need not be considered towards any activity threshold. Prior to initial facility construction and before an NAICS code can be assigned, the EPCRA Section 313 reporting criteria in 40 CFR 372.22 (Covered Facilities for Toxic Chemical Release Reporting) including the activity threshold criterion, do not have to be considered. If chemical activity thresholds for any toxic chemicals used in the construction and installation of process equipment are exceeded elsewhere at the facility during the reporting year, all non-exempt releases and other waste management activities of those toxic chemicals occurring during the reporting year must be reported, including those non-exempt release and other waste management quantities associated with the construction and installation of process equipment. For Rosemont, this means that until there are activities (manufacturing or processing) that meet the NAICS code taking place on-site that exceed the thresholds described in Section 5.2, no reporting is required.

4.4 ADDITIONAL GUIDANCE DOCUMENTATION

Additional guidance on threshold determinations can be found in the Toxic Release Inventory Reporting Forms and Instructions and the Revised 1998 EPCRA Section 313 Questions and Answers Document (EPA, 1998).
5.0 SUBSTANCES COVERED IN EPCRA SECTION 313

This section addresses chemicals and chemical forms subject to reporting under EPCRA 313, chemical activity thresholds used to determine which chemicals or chemical compounds require reporting, reporting exemptions, reporting quantification, and reporting forms and documentation.

5.1 CHEMICALS / CHEMICAL FORMS SUBJECT TO REPORTING UNDER EPCRA 313

The current TRI toxic chemical list contains 593 individually-listed chemicals and 30 chemical categories (including three categories containing 62 specifically-listed chemicals) as set forth in 40 CFR 372.65. This list is frequently updated. A copy of the most current EPCRA Section 313 Chemical Release Inventory Reporting Form R and Instructions documents can be obtained from the EPCRA Hotline (800-535-0202). Rosemont must monitor these updates and take these changes into account when reporting. The following sections describe chemicals and chemicals forms as they pertain to SARA Title III Section 313.

5.1.1 Metals

Table 2 identifies potential Project specific metals that are listed under EPCRA Section 313 and includes each metal's Chemical Abstract Service (CAS) number. Metal compounds are also listed and the entire compound weight must be calculated against threshold determinations (see Section 5.1.5). Verification of the de minimis limits should occur before applying these limits. Metal alloys are considered solid mixtures (see Section 5.3.2 for definition of “de minimis”).

5.1.2 Mixtures

The Section 313 metals contained in mixtures must also be considered for reporting. Mixtures must be included in reporting based on the individual chemical component using the percent composition for each listed chemical in the mixture. A mixture is defined as any combination of two or more chemicals, if the combination is not in whole or in part the result of a chemical reaction. If the combination was produced by a chemical reaction, but could have been produced without a chemical reaction, it is treated as a mixture. A mixture includes any combination consisting of chemicals and associated impurities. Mixtures must be included based on the individual chemical component using the percent composition for each listed chemical in the mixture. Safety Data Sheets (SDSs) (previously Material Safety Data Sheets [MSDSs]) may provide valuable information on the presence and content of EPCRA 313 chemicals in the product under the section entitled “EPCRA Reportable Chemicals” or “SARA Reportable Chemicals.”

5.1.3 Qualified Forms of Listed Chemicals

Listed chemicals must be examined in the manner and form in which they are present. Some chemicals are covered only in specific physical forms such as aerosols or aqueous solutions. EPA lists the qualified chemicals at the beginning of the list of EPCRA Section 313 chemicals.

- Aluminum, vanadium, and zinc are listed under Section 313 with the qualifiers “fume and dust”. Only the weight of these metal present in the forms of “fume and dust” need to be considered against the threshold limits. No consideration needs to be given to the amount of solid aluminum, vanadium, or zinc metal items. Fumes and dusts refer to the dry form of the metal. Wet forms include solutions, slurries, and gaseous vapors.

- Sulfuric acid and nitric acid are chemicals qualified by the form “acid aerosols”. These chemicals only require consideration under Section 313 when present as mists, vapors, gases, fog, and other airborne forms of any particle size. Evaporation from a liquid sulfuric acid is considered “manufacture” of the listed chemical. (see Section 5.2.1 for definition of “manufacturing”). The volume of the acid that remains in liquid form does not count under EPCRA Section 313.
5.1.4 Chemical Categories
There are a number of Section 313 chemical categories covered under EPCRA. All chemicals, which share a specific chemical characteristic as defined by the category, must be combined for threshold calculations and reporting under Section 313. Categories include most metal compounds and certain glycol ethers.

5.1.5 Metal Compound Categories
Metal compound categories include any unique chemical substance, which contains the listed parent metal as part of the chemical’s structure. Converting an elemental metal to a metal compound (or vice versa) is considered manufacturing of the metal compound category member or of the elemental metal, respectively. Amounts of all metal compounds in the category must be added together for comparison to each of the three threshold categories. If the compound form is unknown, assume the metal compound is the lowest possible molecular weight of the general type, or if even the general type is unknown, assume the lowest molecular weight oxide (example lead sulfide or lead oxide rather than lead sulfate or lead chromate).

De minimis exemptions apply to the combined concentrations of all category members in a mixture or ore (see Section 5.3.2 for definition of “de minimis”). For example, if Rosemont activities include processing ore containing a mixture of copper mixture (covellite, chalcopyrite, and chalcocite) then the total combined amount of these three copper compounds would be compared against the de minimus and the threshold for processing. If the copper compounds met the threshold limit, then one Form R report would be prepared to cover all releases from copper from copper compounds.

Threshold determinations use the total weight of the metal compound. Releases are reported in pounds of the elemental metal. For example, 25,000 pounds of copper chromate would meet the processing threshold for copper compounds and for chromium compounds. Therefore, two reports must be prepared. The report for copper compounds will report the releases for copper, while the report for chromium compounds would provide data on the releases of chromium.

5.1.6 Nitrate Compounds
Nitrate compounds thresholds are calculated for the total weight of the compound. Releases are calculated based on the nitrate ion portion (NO$_3$). TRI reporting is limited to compounds that dissociated in water to generate nitrate ions including sodium nitrate, silver nitrate, and ammonium nitrate. Nitrate compounds are generated when nitric acid is neutralized. For example, neutralizing nitric acid by sodium hydroxide produces nitrate solution, which is reportable as a nitrate compound.

5.1.7 Ammonia
EPCRA Section 313 lists ammonia in the two forms of anhydrous ammonia and aqueous ammonia from water dissociable ammonium salts and other sources. Anhydrous ammonia should be considered to be 100% ammonia. Aqueous solutions require reporting for 10% of the total aqueous ammonia. Ammonia that evaporates from aqueous solutions is considered to be 100% ammonia. Dissolving ammonium salts in water is considered to be “manufacturing”. (see Section 5.2.1 for definition of “manufacturing”).

5.1.8 Persistent Bioaccumulative Toxic Chemicals
Persistent Bioaccumulative Toxic (PBT) chemicals have lower reporting thresholds than other TRI chemicals. PBTs are of particular concern because they remain in the environment for long periods of time, are not readily destroyed, and build up or accumulate in body tissue. Currently, there are no PBT’s planned for use at Rosemont. However, there may be naturally occurring PBT’s, such as lead, that will need to be accounted for appropriately.
There are 4 PBT chemical compound categories and 16 PBT chemical categories, which are subject to reporting under EPCRA Section 313. Table 3 lists the name, identification number, and reporting threshold for each.

5.2 CHEMICAL ACTIVITY THRESHOLDS

Activity dependent thresholds determine which chemicals or chemical compounds require reporting. Each chemical must be evaluated in association with one or more of the three categories identified below when determining if the threshold has been exceeded.

- **Manufacturing**: 25,000 pounds in a calendar year – The process where Rosemont creates a chemical or imports a chemical.
- **Processing**: 25,000 pounds in a calendar year – The process of incorporating the chemical into products that Rosemont will distribute in commerce.
- **Otherwise Use**: 10,000 pounds in a calendar year – Any other use of the chemical specific to a non-incorporative activity, including waste management activities on wastes received from off-site.

Each of these three categories used for evaluating chemical thresholds is discussed below.

5.2.1 Manufacturing

For purposes of EPCRA Section 313 reporting, manufacturing is defined as producing, preparing, importing, compounding, or coincidentally manufacturing listed chemicals. Coincidental production of a listed chemical as a by-product or impurity as a result of the manufacturing, processing or otherwise use or waste management of other chemicals is considered manufacturing. An example of manufacturing at Rosemont may include:

- Production of H₂S after molybdenum flotation.

5.2.2 Processing

Processing is defined as the preparation of a listed Section 313 chemical in the same or different form, state, or quantity, after its manufacture, for distribution into commerce. Processing typically involves intentional incorporating Section 313 chemicals to a same product. The extraction of ore containing section 313 chemicals constitutes processing. EPA defines extraction as the physical removal or exposure of ore, waste rock, or overburden prior to beneficiation and encompasses all extraction related activities prior to beneficiation. Processing does not include beneficiation or any further activity. Examples of processing at Rosemont include:

- As a reactant (a natural or synthetic chemical) used in chemical reaction for the manufacture of another chemical substance or process including, but not limited to, feed stocks, raw materials, intermediates, and initiators.
- As a formulation component that is added to a product prior to further distribution of the product that acts as a performance enhancer during the use of the product including additives, dyes, reaction diluents, initiators, solvents, inhibitors, emulsifiers, surfactants, lubricants, flame retardants, and rheological modifiers.
- Repackaging of a Section 313 chemical for distribution in commerce in a different form, shape, or quantity, including transfer of material from bulk containers to a smaller container to include the milling of ore to concentrate.

Rosemont’s concentrate will exceed the processing threshold for copper compounds and could contain metal compounds that will need to be checked against de minimis threshold amounts to ensure all necessary metal compounds are reported. (see Section 5.3.2 for definition of “de minimis”).
5.2.3 Otherwise Use

Otherwise use covers any chemical that does not fall under the manufacturing or processing definitions. Otherwise use implies non-incorporation in that the chemical is not intended to become a part of the product. Examples of otherwise use at Rosemont include:

- As a chemical processing aid that is added to a reaction mixture to aid in the manufacture or synthesis of another chemical substance but is not intended to remain in or become a part of the product or product mixture including solvents, inhibitors, initiators, modifiers, and flotation reagents.

- As a manufacturing aid that does not become part of the resulting product and is not added to the reaction mixture during the manufacture or synthesis of another substance including process lubricants, coolants, refrigerants, grinding media, and hydraulic fluids.

- Ancillary or other uses for purposes other than aiding chemical processing or manufacturing including cleaners, degreasers, lubricants, fuels, and chemicals, used for treating wastes.

- EPA considers the definition of waste management activities within otherwise use to include recycling, combustion, treatment for destruction, waste stabilization, and release including disposal but does not include storage or container transfer.

Otherwise use at Rosemont will include reagent usage in the grinding and flotation circuits, grinding and crushing media, maintenance materials for processing equipment, coolants used in the process areas that are not strictly for employee convenience, water treatment chemicals if not specifically for employee consumption, paint and paint thinners not used for structural elements of the facilities, and fuel for stationary equipment.

5.3 EXEMPTIONS

Section 313 provides certain exemptions from threshold determinations for specific processing or otherwise used activities. If the exemption applies, Rosemont does not have to consider the amount of the listed section 313 chemical involved in any of the activities when determining whether activity thresholds have been exceeded or when reporting releases.

5.3.1 Overburden

The overburden exemption allows Rosemont to disregard section 313 chemical contained in the overburden removed from the open pit. EPA defines overburden as unconsolidated material that overlies a deposit of useful materials or ores. The overburden exemption does not apply to any portion of the ore or waste rock. Rosemont has overburden materials that will apply to this exemption.

5.3.2 De Minimis

The de minimis exemption allows Rosemont to disregard certain minimal concentrations in chemicals in mixtures or trade name products that Rosemont “process” or “otherwise use” when making threshold determinations. De minimis concentrations for Section 313 chemicals are 1.0% unless the chemical is an OSHA defined carcinogen, which then reduces the de minimis level to 0.1%.

De minimis exemptions at Rosemont may include copper and some compounds in mining, crushing, and grinding activities, other metal compounds and metals, certain chemical in reagents, metal and metal compounds in the concentrate and other compounds in stationary equipment maintenance wastes.

5.3.3 Article

The article exemption removes Section 313 chemicals that are contained in articles from threshold and release determinations when that article is processed or otherwise used. The article exemption does not apply to articles manufactured by Rosemont. An article is defined as an item that is manufactured
to a specific shape of design that has end-use function depending in whole or in part by its shape or design, and that does not release a Section 313 chemical under normal conditions of processing or use of the item.

Article exemptions applicable to Rosemont could likely apply to wiring, pipe, condenser tubes, batteries, and other waste that is recycled. The article exemption would not apply to crusher and crusher liners or grinding media as their shape is not retained.

### 5.3.4 Structural Component

The structural component exemption removes Section 313 chemicals that are used as a structural component of the Rosemont Project from the threshold and release determination.

Chemicals that are used to construct, repair, or maintain Rosemont’s buildings, roads, fence lines and utilities are exempt from activity thresholds. The structural component exemption for Rosemont should include paint and solvent used in building maintenance and welding rods used to repair structural components of buildings but not the process equipment. Maintenance of production equipment is excluded from the structural exemption.

### 5.3.5 Janitorial or Facility Grounds Maintenance

The janitorial or facility grounds maintenance exemption removes Section 313 chemicals that are present in materials used in routine janitorial or Rosemont grounds maintenance from the threshold and release determinations.

This janitorial or facility grounds maintenance exemption applies to janitorial or facility ground maintenance cleaners, fertilizers, pesticides, and sweeping compound in the same form and concentration commonly distributed to the consumer. Lubricating and cleaning of production equipment is excluded from this exemption.

### 5.3.6 Motor Vehicle Maintenance

The motor vehicle maintenance exemption removes Section 313 that are present in products used to maintain motor vehicles operated at the Project from the threshold and release determinations.

The motor vehicle maintenance exemption applies to Section 313 chemicals used on self-propelled equipment in the gas and diesel shops and in shovel and drill repair including fuels, lubricants, coolants, and solvents used in the maintenance of this equipment but excludes the use of these items outside of the specific mobile equipment maintenance shops.

### 5.3.7 Personal Use

The personal use exemption removes Section 313 chemicals in material such as food, drugs, cosmetics, and other personal items from the activity threshold.

Personal use items used at the Rosemont Project would include materials used in the cafeteria (lunch room), clinic (first aid facility), potable water treatment system, and heating and air conditioning chemical used for employee comfort. If the chemical is used for cooling offices and computer areas beyond employee comfort, the chemical should be apportioned accordingly.

### 5.3.8 Laboratory Materials

The laboratory materials exemption removes chemicals that are manufactured, processed, or used in laboratory activities from the threshold and release determination. The exemption does not apply to pilot plant operations or laboratory support services.

The laboratory exemption at Rosemont would apply to all production laboratories (inside the facility and inside a laboratory setting), certified laboratories, sample preparation rooms, and any other quality control stations such as titrating stations or x-ray analysis locations.
5.3.9 Intake Water or Air
The intake water or air exemption removes chemicals that are already contained in process water or non-contact cooling water drawn from the environment or municipal sources or in the air used as compressed air or for combustion from the threshold and release determinations.

5.3.10 Owner of Leased Property
The owner of leased property exemption removes all reporting obligations to those who have no business interest in a facility operated on the property. This exemption does not apply to Rosemont.

5.4 QUANTIFICATION
Rosemont’s approach for estimating the amount of Section 313 reportable chemicals should be based on available information and should consider the following strategy.

- Develop ball-park of upper bound estimate based on readily available information such as maximum design capacity, total production, or amounts purchased and stored on-site, listing the activities that are anticipated to involve the largest amounts of chemicals first.

- Metal compound categories require consideration of the total weight of the metal compound. For example, lead oxide is a lead compound category member and requires consideration of the total weight of lead oxide.

- Wastes received from off-site for waste management activities must be considered against the otherwise use threshold.

- Consider the amount of chemical contained in mixtures and process intermediates based on the percent composition by weight. Metals contained in alloys are considered solid mixtures.

- When estimating chemicals in a mixture where partial concentration information is available, EPA regulatory guidance suggests:
  - If only the concentration range is known, use the average of the minimum and maximum levels (minimum = 20, maximum = 60, use 40);
  - If only the maximum concentration is provided, use that concentration (<20, then use 20);
  - If no concentration information is provided or known for the chemical known to be present, the mixture does not have to be considered; and
  - If the minimum concentration is known, assume the highest concentration is 100% and use the average. If other components in the mixture are known, subtract them from the 100% estimate used to create the range.

Refer to 40 CFR 372.30(b)(3) for more information regarding mixture determinations.

EPA guidance states that “if a measurement indicates that a Section 313 chemical is below detection, the facility cannot assume that the chemical is not present. If the chemical is known to be present, a concentration equivalent to half the detection limit should be used in subsequent calculations of release estimate quantities. If the Section 313 chemical is not known to be present in waste, then zero can be assumed”. (Metal Mining Industry Guidance, November 1997)

In short, the overreaching rule is to use best available information to arrive at a reasonable and accurate estimate based on professional judgment.
5.5 REPORTING USING FORM R

Reporting with regard to EPCRA Section 313 is performed annually on the “Form R” and must be submitted by Rosemont no later than July 1st of each year for activities occurring in the previous year. A separate “Form R” must be filed for each chemical for which an activity threshold is exceeded. The “Form R” requires Rosemont to enter amounts of total releases of the chemical to each environmental media, all on-site water management activities, and all off-site water transfers. Total releases include routine and non-routine, permitted and unpermitted releases including all process upsets and accidental spills to all environmental media. On-site waste management activities and transfers of water off-site for the disposal, treatment, and recycling that involves the Section 313 chemical are also included.

5.5.1 Reporting Form R Instructions

The most current version of “Form R” may be found on the following EPA Program Web site, http://www.epa.gov/tri. Any subsequent changes to the “Form R” will be posted on this Web site. Rosemont may also contact the TRI Program at (202) 564-9554 to obtain this information.

Information elements reportable on EPA “Form R”, or equivalent magnetic media format include the following:

A. An indication of whether the report claims chemical identity as trade secret and covers the entire facility or part of a facility.

B. Signature of a senior management official certifying the following: “I hereby certify that I have reviewed the attached documents and, to the best of my knowledge and belief, the submitted information is true and complete and that amounts and values in this report are accurate based upon reasonable estimates using data available to the preparer of the report.”

C. Facility name and address including the toxic chemical release inventory facility identification number if known.

D. Name and telephone number for both a technical contact and a public contact.

E. The six-digit NAICS code(s) for the facility or establishments in the facility.

F. Dun and Bradstreet identification number.

G. The name(s) of receiving stream(s) or water body to which the chemical is released.

H. Name of the facility’s parent company and its Dun and Bradstreet identification number.

I. Name and CAS number (if applicable) of the chemical reported.

J. If the chemical identity is claimed trade secret, a generic name for the chemical.

K. A mixture component identity if the chemical identity is not known.

L. An indication of the activities and uses of the chemical at the facility.

M. An indication of the maximum amount of the chemical on-site at any point in time during the reporting year.

N. Information on releases of the chemical to the environment as follows:
i. An estimate of total releases in pounds (except for dioxin and dioxin-like compounds, which shall be reported in grams) per year (releases of less than 1,000 pounds per year may be indicated in ranges, except for chemicals set forth in 40 CFR 372.28 from the facility plus an indication of the basis of estimate for the following:

   a. Fugitive or non-point air emissions.
   b. Stack or point air emissions.
   c. Discharges to receiving streams or water bodies including an indication of the percent of releases due to storm water.
   d. Underground injection on site.
   e. Releases to land on site.
   f. Additional Reporting for the dioxin and dioxin-like compounds category. (Report the quantity of each member of the dioxin and dioxin-like compounds category in units of grams per year on “Form R Schedule 1”.

ii. Information on transfers of the chemical in wastes to off-site locations as follows:

   a. For transfers to other off-site locations:
      
      (1) The name, address (including county), and EPA identification number (RCRA I.D. Number) of each off-site location, including an indication of whether the location is owned or controlled by the reporting facility or its parent company.
      
      (2) An estimate of the amount of the chemical transferred in pounds (except for dioxin and dioxin-like compounds, which shall be reported in grams) per year (transfers of less than 1,000 pounds per year may be indicated as a range, except for chemicals set forth in 40 CFR 272.28) and an indication of the basis of the estimate. In addition, for reports pertaining to a reporting year ending after December 31, 2007, report the quantity of each member of the dioxin and dioxin-like compounds category in units of grams per year on “Form R Schedule 1”.

iii. The following information relative to waste treatment:

   a. An indication of the general type of waste stream containing the reported chemical.
   b. The treatment method applied to the waste stream.
   c. An estimate of the efficiency of the treatment, which shall be indicated by a range.
   d. An indication (use is optional) of whether treatments listed are part of a treatment sequence.
Release is defined as any spill, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing. Releases include abandonment or discarding barrels, containers, or other closed receptacles. Separate release estimates must be provided for each chemical and be categorized as a release to air, water, or land.

In the August 27, 2013 Federal Register, EPA issued a final rule requiring facilities to report all non-trade secret TRI data to EPA using the TRI-MEweb online reporting application. Electronic reporting of TRI forms provides numerous benefits, including making it easier for facilities to report accurate information, expediting form completion due to the pre-population of many form elements, decreasing the cost to EPA of processing forms, and providing TRI information more quickly to the public. The only exception to this electronic reporting requirement is for the few facilities that submit trade secret TRI information, which will continue to submit their trade secret reporting forms and substantiation forms in hard copy. Under this rulemaking, EPA also requires facilities to submit electronically via the Internet (i.e., not on paper forms or CD–ROMs) any revisions or withdrawals of previously submitted TRI reporting forms. Additionally, EPA will no longer accept submissions, revisions, or withdrawals of TRI reporting forms submitted for reporting years prior to reporting year 1991. For trade secret submissions, EPA will still only accept revisions or withdrawals of previously submitted trade secret information on paper forms, though only for reporting years back to reporting year 1991. This final rule was effective on January 21, 2014.

5.6 GENERAL DOCUMENTATION AND CREDIBLE EVIDENCE RULE

Rosemont will consider using the Credible Evidence (CE) Rule to comply with the EPCRA Reporting requirements. The 40 CFR 372 EPCRA statutes specifically require that Rosemont must use all available information. The statute does not require Rosemont to perform additional analysis. Rosemont will, at a minimum, generate and use the following information and general documentation when compiling Form R reports.

- Process diagrams,
- Annual and monthly production records,
- Geological and mining materials movement reports such as truck dispatch or mine planning and ore control reports,
- Rosemont’s annual report specific to the Project,
- Air emission inventory reports,
- Solution movement reports and pond capacity reports such as feedstock monitoring reports,
- Purchase records from suppliers or standard business system inventory listings of the Section 313 purchases and inventories,
- Spill reporting documents,
- Section 313 reporting threshold worksheets,
- Engineering calculations,
- EPA, ADEQ, and county permits and monitoring reports,
- Monitoring records,
- Flow meter data,
- RCRA hazardous waste generator reports and manifests, and
Invoices from waste management companies.

Rosemont may also consider supplementing this baseline information with chemical specific analysis to more accurately reflect and improve the quality of the reports.

5.7 RECORDKEEPING

Rosemont must retain applicable records for a period of three years from the date of submitting the Section 313 chemical release inventory report (Form R). The specific records to be retained include:

- Copies of the report and Form R,
- All supporting documents to make determination of whether the Project is a covered facility subject to the reporting requirements,
- Documentation supporting any claimed exemption,
- Data supporting threshold determinations,
- Documentation supporting all calculations concerning the quantities of chemicals released into the environment or transferred off-site including the basis of the estimates,
- Documentation supporting the use determinations (Manufactured, processed, or otherwise used) for each section 313 chemical,
- Receipts or manifests of off-site transfers,
- Documentation supporting waste treatment methods and all data supporting waste treatment efficiency estimates,
- Documentation supporting the determination of whether to provide a supplier notification and all documentation used to develop the required notice, and
- All records must be maintained at Rosemont site to which the Form R applies or from which a supplier notification was provided.

5.8 NOTIFICATION UNDER THE TOXIC SUBSTANCES CONTROL ACT (TSCA)

In accordance with 40 CFR 372.45(c), as a manufacturer of copper concentrate that contains toxic compounds, Rosemont must notify each person to whom the concentrate is sold or otherwise distributed from the Facility. The notification must be in writing and shall include:

- A statement that the concentrate contains a toxic chemical or chemicals subject to the reporting requirements of EPCRA Section 313,
- The name of each toxic chemical, and the associated Chemical Abstracts Service registry number of each chemical if applicable,
- The percent by weight of each toxic chemical in the mixture or trade name product.
- For a mixture or trade name product containing a toxic chemical, Rosemont must provide the written notice to each recipient of the concentrate with at least the first shipment of each concentrate to each recipient in each calendar year.
- If Rosemont changes the concentrate composition by adding a toxic chemical, removing a toxic chemical, or changing the percent by weight of a toxic chemical in the concentrate, Rosemont shall provide each recipient of the changed mixture or trade name product a revised notification reflecting the change with the first shipment of the changed mixture or trade name product to the recipient.
• If Rosemont discovers that the concentrate previously sold or otherwise distributed to another person during the calendar year of the discovery contains one or more toxic chemicals and that any notification provided to such other persons in that calendar year for the concentrate either did not properly identify any of the toxic chemicals, or did not accurately present the percent by weight of any of the toxic chemicals in the mixture or trade name product, Rosemont shall provide a new notification to the recipient within 30 days of the discovery.

If a Safety Data Sheet (SDS) is required to be prepared and distributed for the concentrate in accordance with OSHA 29 CFR 1910.1200 and MSHA 30 CFR Part 47 the notification must be attached to, or otherwise incorporated into, such SDS. When the notification is attached to the SDS, the notice must contain clear instructions that the notifications must not be detached from the SDS and that any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.
6.0 ADAPTIVE MANAGEMENT

Rosemont will implement an adaptive management process in the monitoring of the Facility EPCRA Section 313 reporting program at the Project and update or revise this TRI Plan to ensure it continues to meet all goals, objectives, permit, and regulatory requirements. Adaptive management will include strategy/procedures including audits, annual revisions/reopeners, and other anticipated changes. In this case especially, adaptive management is not simply “learning by doing” or “adjusting to the unexpected”, but a systematic, deliberate, and defined methodology to achieve a desired outcome. Adaptive management in this case is a six-step process for defining and implementing management policies to address complex problems under a relatively high degree of uncertainty regarding the characterization of an environmental system and the impact or outcome of remedial actions. The six steps of the adaptive management process are:

- Assess the Problem.
- Design the Adaptive Management Plan.
- Implement the Adaptive Management Plan.
- Monitor.
- Evaluate Monitoring Results.
- Adjust the Adaptive Management Plan in Response to Monitoring Results.

Adaptive management considers uncertainty and monitors and evaluates the effectiveness of Project operations planning. An adaptive management approach will enable the identification of lessons learned and the enhancement of Project operations understanding to support overall design and implementation improvement in terms of operational efficiency.

A key component of the success of the adaptive management process is refinement of the processes described in the operations and monitoring plans, including this TRI Plan, as new information becomes available that clarifies uncertainties regarding the understanding of the chemical reporting, Project management, and the effectiveness of operational approaches and technologies used. Adaptive management reviews, adjustments, and incorporation of changes into the management objectives, strategies, approaches, and tools used in the Project operations process will be conducted on an annual basis lead by the Project Environmental Manager. As part of the annual Form R Reporting, all chemical and chemical compounds will be reviewed and documented.

6.1 STANDARD OPERATING PROCEDURES AND TRAINING

Rosemont personnel will utilize standard operating procedures (SOPs) in implementation of this TRI Plan. Competent personnel will be required to understand and interpret regulatory guidelines, apply site-specific exemptions, gather critical process data, develop detailed spreadsheets, perform accurate and precise calculations, input data into acceptable electronic reporting formats, and maintain concise records. Using this approach will provide maximum accuracy and minimize reporting errors.

6.1.1 Standard Operating Procedures

There are no Standard Operating Procedures developed at this time.

6.1.2 Environmental Management System

Employees will use an Environmental Management System (EMS) to track, schedule, and create reports for the EPCRA Section 313 report. Information will be tracked using tools available such as MSDSonline, Intelex, SAP, etc. Any necessary changes to the data management or collection requirements will be identified during the adaptive management process.
6.1.3 Employee Training

Rosemont employees that prepare the reporting forms under this TRI Plan are required to attend training on an annual basis. The objective of the training program is to ensure compliance with this TRI Plan and related regulatory requirements.
7.0 PLAN MAINTENANCE AND REVISION

The maintenance and revision of this TRI Plan will be conducted as outlined in this section.

7.1 LOCATION OF FACILITY INSPECTION PLAN

A complete copy of this TRI Plan is currently maintained at the Rosemont office at 5255 E. Williams Circle, Suite 1065, in Tucson, AZ 85711-7407. This TRI Plan will be made available during normal working hours to agency inspectors for on-site review. A copy will also be available at the Project site once activities commence.

7.2 PLAN REVIEW AND AMENDMENTS

Rosemont will periodically review and evaluate this TRI Plan for any changes regarding the operations, design, construction, or maintenance activities conducted at the Project that could materially affect the potential for changes to facility reporting requirements. Rosemont’s Environmental Manager is responsible for amending this TRI Plan whenever a change is required.

The amendments will be made to this TRI Plan as soon as possible, but no later than six (6) months after the change occurs. The TRI Plan must be implemented as soon as possible following any technical amendment, but no later than the next reporting cycle following the date of the amendment.

This TRI Plan may be revised following periodic review by Rosemont’s Environmental Manager, including modifications resulting from the adaptive management process. Revisions to this Facility EPCRA Section 313 Plan (TRI Plan) for the Rosemont Copper Project are recorded in the table on page i.
8.0 REFERENCES

ARS Title 49, Chapter 5, Article 4, Sections 961 and 962 (ARS 49-961 and 962)


Title III, of the Superfund Amendments and Reauthorization Act of 1986 (also Emergency Planning and Community Right-to-Know Act) Section 313 (also 40 CFR 372)
### Table 1 - Rosemont Key Personnel

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director, Environment</td>
<td>Katherine Ann Arnold, P.E.</td>
</tr>
<tr>
<td>Environmental Manager</td>
<td>David Krizek, P.E.</td>
</tr>
<tr>
<td>Environmental Management System Specialist</td>
<td>TBD</td>
</tr>
<tr>
<td>Environmental Specialist</td>
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</table>

### Table 2 - Metals Specifically Listed Under EPCRA Section 313 (40 CFR 372.65 and 40 CFR 372.28)

<table>
<thead>
<tr>
<th>Metal</th>
<th>CAS Number</th>
<th>De Minimis</th>
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</thead>
<tbody>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
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</tr>
<tr>
<td>Molybdenum</td>
<td>1313-27-5</td>
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</tr>
<tr>
<td>Lead</td>
<td>7439-92-1</td>
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</tr>
<tr>
<td>Nickel</td>
<td>7440-02-0</td>
<td>0.1</td>
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<tr>
<td>Barium</td>
<td>7440-39-3</td>
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</tr>
<tr>
<td>Beryllium</td>
<td>7440-41-7</td>
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<tr>
<td>Silver</td>
<td>7440-22-4</td>
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<td>Cobalt</td>
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<td>Cadmium</td>
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<td>Chromium</td>
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<td>Manganese</td>
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<td>Mercury</td>
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<td>1.0</td>
</tr>
<tr>
<td>Aluminum (Fume and Dust)</td>
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</tr>
<tr>
<td>Vanadium (Fume and dust)</td>
<td>7440-62-2</td>
<td>1.0</td>
</tr>
<tr>
<td>Zinc (Fume and dust)</td>
<td>7440-66-6</td>
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Table 3 - List of PBT Chemicals and Reporting Thresholds

<table>
<thead>
<tr>
<th>Category Name</th>
<th>TRI Category #</th>
<th>Reporting Threshold (in pounds unless noted otherwise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dioxin and dioxin-like compounds (manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical)</td>
<td>N150</td>
<td>0.1 grams</td>
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<tr>
<td>Lead Compounds</td>
<td>N420</td>
<td>100</td>
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<tr>
<td>Mercury compounds</td>
<td>N458</td>
<td>10</td>
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<tr>
<td>Polycyclic aromatic compounds (PACs)</td>
<td>N590</td>
<td>100</td>
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<tr>
<td>Aldrin</td>
<td>309-00-2</td>
<td>100</td>
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<tr>
<td>Benzo(g,h,i)perylene</td>
<td>191-24-2</td>
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<td>Chlordane</td>
<td>57-74-9</td>
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<td>Heptachlor</td>
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<td>Hexachlorobenzene</td>
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<td>Isodrin</td>
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</tr>
<tr>
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</tr>
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<td>Methoxychlor</td>
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<td>Octachlorostyrene</td>
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<td>Pendimethalin</td>
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<td>Pentachlorobenzene</td>
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<tr>
<td>Polychlorinated biphenyl (PCBs)</td>
<td>1336-36-3</td>
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<tr>
<td>Tetrabromobisphenol A</td>
<td>79-94-7</td>
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<td>Toxaphene</td>
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<tr>
<td>Trifluralin</td>
<td>1582-09-8</td>
<td>100</td>
</tr>
</tbody>
</table>

PBT = Persistent Bioaccumulative Toxic (PBT) chemicals
EXHIBIT
Exhibit 1 - Environmental Health and Safety Policy

Arizona Business Unit

Our Objectives

1. To support and comply with the Hudbay Minerals Corporate EHS Policy.
2. To explore, mine and produce metals in an environmentally responsible manner, while maintaining a safe and healthy workplace.
3. To control risk and achieve a high level of occupational health and safety and protection of the environment.

Our Commitments

1. We will develop, implement and continually improve the effectiveness of safety, health and environmental management systems;
2. We will meet applicable legal and regulatory safety, health and environmental requirements, policies and codes of practice;
3. We will reduce the risk of injury or occupational health exposure;
4. We will develop and maintain a culture of environmental responsibility and an awareness of the primary importance of safety and health;
5. We will use sustainable practices that avoid adverse effects on the environment of the communities in which we operate;
6. We will monitor effectiveness and review safety, health and environmental programs, objectives and targets;
7. We will provide adequate resources for safety, health and environmental programs; and
8. We will support and contribute to the annual corporate social responsibility report, which demonstrates our commitment to continuous measurement and improvement of our environmental, safety and health performance.

Patrick Merrin
Vice President Arizona Business Unit

June 2015
Figure 1. Project Location