



April 11, 2024

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**Re: Concerns Over Copper World, Inc. Air Pollution Permit Application,
Proposal to Issue Class II as Opposed to Class I Permit**

Dear Director Peters and Ms. Murrieta:

The undersigned write to express significant concerns over Copper World Inc.'s application for a Class II air pollution permit for the Copper World Project, a new open pit copper mine in the Santa Rita Mountains in Pima County. Based on materials submitted by Copper World to the Arizona Department of Environmental Quality (ADEQ), **it does not appear the proposed mine qualifies as a Class II source of air pollution and must instead be permitted as Class I source.** We request ADEQ permit the Copper World Project appropriately to ensure adequate and full protection of clean air, public health, and the environment.

Under the Arizona State Implementation Plan (SIP), an entity seeking to construct and operate a new stationary source of air pollution must obtain an appropriate permit prior to construction. See A.A.C. R18-2-302.A. For a source that has the potential to emit 100 tons per year or more of any air pollutant, also known as a major source, an entity must obtain a "Class I permit." A.A.C. R18-2-302.B.1. If a source has the potential to emit less than 100 tons per year of any air pollutant, also known as a minor source, an entity generally must obtain a "Class II permit." A.A.C. R18-2-302.B.2.

In the case of the Copper World Project, Copper World, Inc. has applied for a Class II permit, claiming that the potential to emit of the new mining operations would be below major source thresholds. **However, it does not appear that Copper World has appropriately calculated potential emissions and has not accurately determined the new mining project would not, in fact, be a major source.**

Our primary concern is that Copper World has not properly categorized fugitive emissions. While fugitive emissions are excluded from the calculation of whether a source is major, non-fugitive emissions are not. Here, we are concerned that Copper

World has **inappropriately excluded non-fugitive emissions**, erroneously claiming the Copper World Project will not be a major source and not require a Class I permit.

Under the Arizona SIP, fugitive emissions are defined as, “those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.” A.A.C. R18-2-101.59.¹ In interpreting this definition, the U.S. Environmental Protection Agency (EPA) has consistently explained that a determination of whether emissions can “reasonably pass through a stack, chimney, vent, or other functionally equivalent opening” is based on an assessment of whether emissions can reasonably be collected and passed through a stack, chimney, vent, or other functionally equivalent opening. See Exhibit 1, U.S. EPA, “Interpretation of the definition of fugitive emissions in Parts 70 and 71,” Memo from Thomas C. Curran to Judith Katz (Feb. 10, 1999) at 2. When assessing whether emissions can reasonably be collected, EPA has further held that a determination of “reasonableness” should be construed “broadly.” Exhibit 2, U.S. EPA, “Classification of emissions from landfills for NSR applicability purposes,” Memo from John S. Seitz to Regional Air Division Directors (Oct. 21, 1994) at 2. EPA has generally held that where emission collection technology is in use by other sources within the same source category or by a similar pollutant emitting activity, there is a presumption that collection is reasonable. *Id.*

We are first and foremost concerned that Copper World appears to believe that a determination of whether emissions are fugitive is based on whether emissions are passing or will pass through a stack, chimney, vent, or other functionally equivalent opening.

In response to a May 2, 2023 ADEQ request for additional information, Copper World asserted that emissions from “rock breakers and associated material transfer points” were fugitive because they “are not emitted into the atmosphere through a ‘vent, stack or functionally equivalent opening.’” Copper World Response to Comprehensive Request for Additional Information (May 31, 2023) at 4. However, a determination of whether emissions are fugitive is not based on whether emissions **are** passing or **will pass** through an opening. Rather, a determination of whether emissions are fugitive is based on whether emissions **can** “reasonably pass through” a “vent, stack or functionally equivalent opening,” meaning **can** emissions reasonably be collected and passed through an opening. Here, as Copper World notes in its application, emissions from the rock breakers and material transfer points can be collected using dust collectors, enclosures, and other techniques. See Copper **World Air Permit Application, at 4-9—4-10. This means the emissions are not fugitive.**

Secondly, Copper World classifies a number of pollutant emitting activities as sources of fugitive emissions, even though these emissions could reasonably pass through vents, stacks or functionally equivalent openings. For instance, Copper World

¹ This definition echoes the definition of “fugitive emissions” found in federal regulations implementing various stationary source permitting requirements of the Clean Air Act. See 40 C.F.R. § 51.165(a)(1)(ix), 40 C.F.R. § 51.166(b)(20), 40 C.F.R. 52.21(b)(20), 40 C.F.R. § 63.2, 40 C.F.R. § 70.2, and 40 C.F.R. § 71.2.

appears to classify all stockpiles as sources of fugitive particulate matter, including PM₁₀ and PM_{2.5}, yet stockpiles can be enclosed, which allows for the capture of emissions and the ability to vent them through a vent, stack or functionally equivalent opening. Enclosed stockpiles are utilized at mining operations around the world and companies offer custom-engineered enclosures (see e.g. “Custom Covers and Enclosures” offered by Dust Control Technologies, Inc., <https://dustcontroltech.com/products> and Bulk storage domes offered by Geometrica, <https://www.geometrica.com/en/bulk-subsection-english>). Copper World itself discloses in its application that it intends to enclose the copper concentrate stockpile at the proposed mine, indicating that enclosed stockpiles are presumed reasonable.²

Although it may be claimed that the cost of constructing emission collection systems, such as enclosures, etc., argues against considering emissions to be non-fugitive, the EPA has cautioned that cost considerations should not “be given any more weight than other factors.” Exhibit 1 at 3. This is especially true given that a determination that emissions from the Copper World Project are non-fugitive would not require Copper World to construct collection systems. Rather, it would simply require Copper World to either take steps to limit the facilities’ potential to emit non-fugitive emissions or to employ other control strategies to comply with applicable permitting requirements.

It is also concerning that several pollutant emitting activities are classified as fugitive by Copper World when the company’s application indicates emissions will actually be collected and controlled. This includes emissions from crushers, rock breakers, and related activities. For example, emissions from several crushers, including the oxide primary crusher, the oxide secondary crusher, and the sulfide primary crusher, will be captured and controlled with a dust collector, yet Copper World claims these emissions will be fugitive. Emissions from other crushers, rock breakers, conveyors, transfers, feeders, chutes, and screens are also similarly classified as fugitive, yet Copper World’s own application discloses that emissions from these sources will be captured and controlled with dust collectors. It is telling that Copper World claims that emissions from these activities will largely be controlled by 99% or more, an extremely high control efficiency reflecting the fact that emissions will be contained and controlled and are not fugitive.

The failure to properly characterize fugitive and non-fugitive emissions is greatly concerning. According to Copper World, total non-fugitive emissions of individual pollutants will be below the Class I permitting threshold of 100 tons per year. If non-fugitive emissions were properly characterized, however, non-fugitive emissions would exceed the Class I permitting threshold. Indeed, if PM₁₀ pollution just from primary crushing, conveying, coarse ore storage, and reclaim conveying, oxide ore process,

² In spite of the fact that the copper concentrate stockpile will be enclosed, Copper World classifies emissions from the stockpile as “fugitive” in its application, further underscoring that the company has not accurately characterized fugitive and non-fugitive emissions.

sulfide ore process, and tailings storage were properly characterized as non-fugitive, total emissions would be more than 104 tons per year.

We are finally concerned that Copper World has claimed unreasonably high control efficiencies in estimating the proposed mine's potential to emit. In its application, the company asserts that fogging sprays, scrubbers, and dust collectors used to control emissions will achieve a 99% control efficiency for all pollutants. To begin with, this exceptionally high level of control efficiency would require Copper World to operate and maintain its equipment at near-perfect performance levels at all times, and presumes that there would be no malfunctions, no upsets, and no instances of human error. This is incredibly unrealistic does not appear to reflect what will be actual operating conditions. Although fogging sprays, scrubbers, and dust collectors can achieve high control efficiencies, it is unreasonable to presume they will achieve a 99% control efficiency at all times during the life of the proposed mine.

Also concerning is Copper World's broad assumption that dust collectors will achieve a 99% control efficiency for all forms of particulate matter, including fine and coarse. While dust collection systems can often achieve high levels of coarse particulate matter control, they do not necessarily achieve the same level of control for fine particles, or PM₁₀ and PM_{2.5}.

In light of this, we have concerns that emissions of PM₁₀ and PM_{2.5} have been significantly underestimated for purposes of determining the Copper World Project's potential to emit. Even if Copper World's assumed control efficiencies are erroneous by just one or two percent, the potential to emit from a number of activities could be more than double what is currently estimated.

Copper World's proposed mine poses serious risks to air quality, public health, and the environment. To this end, it is critical that ADEQ ensure that the Copper World Project is subject to appropriate scrutiny and permitting under the Arizona SIP and applicable requirements of the Clean Air Act. This must start with assuring the Copper World Project is subject to Class I permitting requirements under the SIP.

Sincerely,



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Exhibit 1

February 10, 1999

MEMORANDUM

SUBJECT: Interpretation of the Definition of Fugitive Emissions
in Parts 70 and 71

FROM: Thomas C. Curran, Director /s/
Information Transfer and Program
Integration Division (MD-12)

TO: Judith M. Katz, Director
Air Protection Division, Region III (3AT00)

This is in response to your memorandum of August 8, 1997 and subsequent discussions regarding the definition of "fugitive emissions." Specifically, you asked how this definition applies to the emissions of volatile organic compounds (VOC) from the printing industry, whiskey warehouses, paint manufacturing facilities, and other similar sources for purposes of title V. The delay in getting back to you was principally due to extensive consultation as needed among the various Headquarters and Regional Offices and has resulted in more technically and legally supportable policy.

When counting emissions to determine if a source exceeds the major source thresholds under title V (parts 70 and 71), nonfugitive VOC emissions are always counted. Fugitive VOC emissions, however, are counted only in certain circumstances. Because of this, the determination of whether emissions are fugitive or nonfugitive can be critically important for major source determinations under title V.

The EPA defines "fugitive emissions" in the regulations promulgated under title V as "those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening" (see title 40 of the Code of Federal Regulations, sections 70.2 and 71.2). This definition is identical to the definition of "fugitive emissions" adopted by EPA in the regulations implementing the new source review (NSR)

program. Given this, the precedents established in the NSR program should be relied on in interpreting the definition of "fugitive emissions" for purposes of title V.

In 1987 and again in 1994, EPA issued guidance regarding the classification of emissions from landfills for NSR applicability purposes.¹ In these guidance memorandums, EPA made clear that emissions which are *actually collected* are not fugitive emissions. Thus, for example, when a source is subject to a national standard requiring collection of emissions, these emissions cannot be considered fugitive. Whether or not a source is subject to such a national standard, emissions which pass through a stack, chimney, vent, or other functionally-equivalent opening are not fugitive.

Where emissions are not actually collected at a particular site, the question of whether the emissions are fugitive or nonfugitive should be based on a factual, case-by-case determination made by the permitting authority. As noted in EPA's 1994 guidance,

In determining whether emissions could reasonably be collected (or if any emissions source could reasonably pass through a stack, etc.), "reasonableness" should be construed broadly. The existence of collection technology in use by other sources in a source category creates a presumption that collection is reasonable. Furthermore, in certain circumstances, the collection of emissions from a specific pollutant emitting activity can create a presumption that collection is reasonable for a similar pollutant-emitting activity, even if that activity is located within a different source category.

Based on the above principles, EPA believes it appropriate to presume that VOC emissions from the printing industry and paint manufacturers could reasonably be collected and thus are

¹ See memorandums entitled "Classification of Emissions from Landfills for NSR Applicability Purposes" from John S. Seitz, Office of Air Quality Planning and Standards, to Air Division Directors, Regions I-X, dated October 21, 1994, and "Emissions from Landfills" from Gerald A. Emison, Director, Office of Air Quality Planning and Standards, to David P. Howekamp, Director, Air Management Division, Region IX, dated October 6, 1987.

not fugitive. In addition, unless this presumption is rebutted by the source, such emissions should be counted in major source determinations.

We have reached this conclusion for printers and paint manufacturers because certain printers are subject to national standards and State implementation plan (SIP) requirements (e.g., reasonably achievable control technology, best available control technology, or lowest achievable emissions rate) requiring collection. Moreover, sources in both of these source categories commonly employ collection devices. The common use of collection technology by other printing and paint manufacturing sources creates a presumption that collection of emissions is reasonable at other similar sources.

In the case of whiskey warehouses, the presumption that emissions could reasonably be collected is less compelling and may warrant further consideration by States in consultation with the EPA Regional Offices. For example, we are not aware of any national standards or SIP requirements for the collection of VOC emissions from whiskey warehouses, and we believe it is uncommon for them to have voluntarily installed collection devices. On the other hand, EPA is aware of warehouses in other source categories that collect emissions and thus a presumption is created that whiskey warehouse emissions could reasonably be collected. In addition, in a factual determination for a whiskey warehouse in the State of Indiana, EPA Region V found, after careful review, that the emissions of the warehouse were not fugitive.

In addition, you ask whether costs should be a factor used to determine if emissions can be reasonably collected. Obviously, when emissions are actually collected, cost considerations are irrelevant to determine whether emissions are fugitive. On the other hand, when a source does not actually collect its emissions, but there is a presumption that collection would be reasonable, a permitting authority could consider costs in determining whether this presumption is correct. However, when analyzing whether collection is reasonable for a particular source, the permitting authority should not focus solely on cost factors, nor should cost factors be given any more weight than other factors. Instead, the permitting authority should focus on determining whether a particular source is truly similar to the "similar sources" used to create the presumption. This determination can be made by looking at whether there are substantial differences in the technical or engineering characteristics of the sources. In this stage of the analysis, a comparison of the costs of collecting emissions could be relevant where it illustrates the underlying technical or engineering

differences. Moreover, keep in mind that title V does not impose any requirements on subject sources to collect (or control) their emissions and that collection is only assumed for the purpose of determining title V applicability. Thus, no source will ever be required to incur the costs of installing, operating, or maintaining collection devices (or control devices) because of a presumption that its emissions are not fugitive or subsequently because it is found to be subject to title V.

The approach for interpreting the definition of fugitive emissions outlined in this memorandum is consistent with the approach used historically by Headquarters, as well as the majority of EPA Regions and States. We believe, therefore, that the impact of this memorandum will be limited, both in the number of sources for which reclassification of emissions from fugitive to nonfugitive may be required, and to a greater extent, in the number of sources subject to reclassification from minor to major source.

We recognize that this interpretation may present enforcement issues for an unknown (but presumably small) number of sources whose initial title V applicability determinations were overly broad with respect to which emissions they have interpreted as being fugitive. Therefore, EPA recommends that the following steps be taken. If the policies of an EPA Region or State for interpreting the definition of fugitive emissions are consistent with the policies described in this memorandum, then the EPA Region or State should continue to enforce its policies as it has in the past. However, if the policies of an EPA Region or State have not been as inclusive as the policies described in this memorandum, then major sources that have not applied for operating permits on the basis of these less-inclusive policies should be instructed to immediately notify the State and EPA Region in writing of their obligation to obtain a title V permit. Such sources should be instructed to prepare and submit permit applications to the appropriate permitting authority as expeditiously as possible.

The EPA will use its enforcement discretion in deciding whether or not to seek an enforcement action against sources for failure to obtain an operating permit. However, factors that may be considered in deciding whether to seek enforcement action against sources may include whether the sources relied on less inclusive policies of a State or EPA Region and whether the sources expeditiously submit permit applications after they become aware of the national policy described in this memorandum.

If you have any questions, please contact Steve Hitte at 919-541-0886 or Jeff Herring at 919-541-3195 of the Operating Permits Group.

cc: Director, Office of Ecosystem Protection, Region I
Director, Division of Environmental Planning and Protection,
Region II
Director, Air, Pesticides, and Toxics Management Division,
Region IV
Director, Air and Radiation Division, Region V
Director, Multimedia Planning and Permitting Division,
Region VI
Director, Air, RCRA, and Toxics Division, Region VII
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Exhibit 2

October 21, 1994

MEMORANDUM

SUBJECT: Classification of Emissions from Landfills for
NSR Applicability Purposes

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

TO: Director, Air, Pesticides and Toxics
Management Division, Regions I and IV
Director, Air and Waste Management Division,
Region II
Director, Air, Radiation and Toxics Division,
Region III
Director, Air and Radiation Division,
Region V
Director, Air, Pesticides and Toxics Division,
Region VI
Director, Air and Toxics Division,
Regions VII, VIII, IX and X

The EPA has recently received several inquiries regarding the treatment of emissions from landfills for purposes of major NSR applicability. The specific issue raised is whether the Agency still considers landfill gas emissions which are not collected to be fugitive for NSR applicability purposes.

The EPA's NSR regulations define "fugitive emissions" to mean "those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening" (40 CFR 51.165(a)(1)(x)). In general, where a facility is not subject to national standards requiring collection, the technical question of whether the emissions at a particular site could "reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening" is a factual determination to be made by the permitting authority, on a case-by-case basis.

In determining whether emissions could reasonably be collected (or if any emissions source could reasonably pass through a stack, etc.), "reasonableness" should be construed broadly. The existence of collection technology in use by other sources in the source category creates a presumption that collection is reasonable. Furthermore, in certain circumstances, the collection of emissions from a specific pollutant emitting activity can create a presumption that collection is reasonable for a similar pollutant-emitting activity, even if that activity is located within a different source category.

In 1987, EPA addressed whether landfill gas emissions should be considered as fugitive.¹ The Agency explained that for landfills constructed or proposed to be constructed with gas collection systems, the collected landfill gas would not qualify as fugitive. Also, the Agency understood at the time that, with some exceptions, landfills were not constructed with such gas collection systems. The EPA explained that "[t]he preamble to the 1980 NSR regulations characterizes nonfugitive emissions as emissions which would ordinarily be collected and discharged through stacks or other functionally equivalent openings" (see 45 FR 52693, Aug. 7, 1980).² Based on the "understanding that landfills are not ordinarily constructed with gas collection systems," the Agency concluded that "emissions from existing or proposed landfills without gas collection systems are to be considered fugitive emissions." The Agency also made clear, however, that the applicant's decision on whether to collect emissions is not the deciding factor. Rather, it is the reviewing authority that makes the decision regarding which emissions can reasonably be collected and therefore not considered fugitive.

The EPA believes its 1987 interpretation of the 1980 preamble may have been misunderstood, and in any case that its factual conclusions at that time are now outdated. Continued misunderstanding or application of this outdated view could discourage those constructing new landfills from utilizing otherwise environmentally- or economically-desirable gas collection and mitigation measures in order to avoid major NSR applicability.

¹See memorandum entitled "Emissions from Landfills," from Gerald A. Emison, Director, Office of Air Quality Planning and Standards, to David P. Howekamp, Director, Air Management Division, Region IX, dated October 6, 1987 (attached). It is important to note that the interpretation contained in this memorandum was only applicable to landfills.

²In fact, the 1980 preamble language recognized the concern that sources could avoid NSR by calling emissions fugitives, even if the source could capture those emissions. The EPA's originally-proposed definition of fugitive emissions was changed in the final 1980 regulations to "ensure that sources will not discharge as fugitive emissions those emissions which would ordinarily be collected and discharged through stacks or other functionally equivalent openings, and will eliminate disincentives for the construction of ductwork and stacks for the collection of emissions." Id.

Specifically with regard to landfill gas emissions, gas collection and mitigation technologies have evolved significantly since 1987, and use of these systems has become much more common. Increasingly, landfills are constructed or retrofitted with gas collection systems for purposes of energy recovery and in order to comply with State and Federal regulatory requirements designed to address public health and welfare concerns. In addition, EPA has proposed performance standards for new landfills under section 111(b) of the Clean Air Act and has proposed guidelines for existing landfills under section 111(d) that, when promulgated, will require gas collection systems for existing and new landfills that are above a certain size and gas production level (see 56 FR 24468, May 30, 1991). Under these requirements, EPA estimates that between 500 and 700 medium and large landfills will have to collect and control landfill gas. The EPA believes this proposal created a presumption at that time that the proposed gas collection systems, at a minimum, are reasonable for landfills that would be subject to such control under the proposal.

Thus, EPA believes it is no longer appropriate to conclude generally that landfill gas could not reasonably be collected at a proposed landfill project that does not include a gas collection system. The fact that a proposed landfill project does not include a collection system in its proposed design is not determinative of whether emissions from a landfill are fugitive. To quantify the amount of landfill gas which could otherwise be collected at a proposed landfill for NSR applicability purposes, the air pollution control authority should assume the use of a collection system which has been designed to maximize, to the greatest extent possible, the capture of air pollutants from the landfill.

In summary, the use of collection technology by other landfill sources, whether or not subject to EPA's proposed requirements or to State implementation plan or permit requirements, creates a presumption that collection of the emissions is reasonable at other similar sources. If such a system can reasonably be designed to collect the landfill's gas emissions, then the emissions are not fugitive and should be considered in determining whether a major NSR permit is required.

Today's guidance is applicable to the construction of a new landfill or the expansion of an existing landfill beyond its currently-permitted capacity. To avoid any confusion regarding the applicability of major NSR to existing landfills, EPA does not plan to reconsider or recommend that States reconsider the major NSR status of any existing landfill based on the issues discussed in this memorandum. Also, nothing in this guidance voids or creates an exclusion from any otherwise applicable requirement under the Clean Air Act and the State implementation plan, including minor source review.

The Regional Offices should send this memorandum, including the attachment, to States within their jurisdiction. Questions concerning specific issues and cases should be directed to the appropriate Regional Office. Regional Office staff may contact Mr. David Solomon, Chief, New Source Review Section, at (919) 541-5375, if they have any questions.

Attachment

cc: Air Branch Chief, Regions I-X
NSR Contacts, Regions I-X and Headquarters

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