May 8, 2018

Mr. John Shanahan
Tintina Montana, Inc.
17 E Main Street
White Sulphur Springs, MT 59645

RE: Montana Air Quality Permit (MAQP) #5200-00 (Correction to Earlier Correspondence Noted)

Sent via email: JShanahan@sandfireamerica.com

Dear Mr. Shanahan:

The Montana Department of Environmental Quality-Air Quality Bureau (Department) has mostly completed a review of Tintina Montana's (Tintina) revised air permit application submitted on April 20, 2018, for the proposed Black Butte Copper Project near White Sulphur Springs, Meagher County, Montana. The response to the earlier incompleteness letter provided adequate responses for those items. However, the Department has noted a few additional issues and requests the following information/concurrence:

1. In Table 6-4, the Department believes the unit of measurement for the 1-hour CO background concentration is shown in ppm rather than ug/m^3. Using the correct conversion makes the 1-hour CO background something closer to 1031 ug/m^3. This would also need to be reflected in Table 6-6 and corrections would need to be made in the comparison of the NAAQS and MAAQS. Neither of these changes cause a different determination for CO but the Department will be including the corrections in the air quality analysis in the preliminary determination and would like your concurrence on these minor changes.

2. The Department has noted when the change was made to the control efficiency from 50% to 80% on the first 200 meters of the main haul road (F30), F30 is still shown in a couple of the tables at the lower control efficiency (and therefore higher emissions). This appears to just be the result of not applying the 80% control to the first 26 volume sources for the numbers in these tables (Table 3-2, Fugitive Table and the actual emissions calculations on page 398 of the PDF as well as Section 3.0 Emission Inventory summary for F30). Therefore, the tables over-state the exact emissions which were modeled by approximately 1.4 tons per year of PM_{10} (and similarly for PM and $PM_{2.5}$).

3. Discrepancies were found between the modeled road lengths and the road lengths in the "Road Dust Design Values" (Rddv) worksheet. The road length differences are summarized in the table. The Department did not total the emission differences for all of these road segments but have two specific examples as to how this impacts a couple of the road segments. Please confirm whether the road segments modeled are indeed the correct lengths and whether the Road Dust Design Values are in error.

Rd.ID	Model_Length (m)	RDDV_length (m)	Difference(m)
Access	2339.1	2342	-2.9
Construc	328.5	332.2	-3.7
Rd_DAC	**616**	**952.5**	**-336.5**
Rd_DBP	**350.1**	**349**	**1.1**
Rd_DCC	**501.4**	**399.9**	**101.5**
Rd_DCM	252.9	254.5	-1.6
Rd_DCO	237.9	317.9	-80
Rd_PKX	280.1	280.4	-0.4
Rd10	2669	2649.3	19.7
Rd16	343.6	361.2	-17.6
Rd17	146.9	99.4	47.5
Rd18	237.9	254.5	-16.6
Rd19	84.3	93	-8.6
Rd20	412.6	503.5	-90.9
Rd23	97	99.3	-2.3
Rd24	59.4	57.5	1.9
Rd25	**105.5**	**106.7**	**-1.2**
Rd4	376.4	370.4	6
Rd5	261	269.7	-8.7
Rd6	264.3	195.1*	69.2
Rd7	890.1	952.2	-62.1
Rd8	757.2	765.8	-8.6
Rd9	1256.3	1367.7	-111.4
Rd9B	158.6	NA	NA

*Rd6 meters to feet was not converted correctly in the spreadsheet. The represented value in feet match up with the modeled value.

Road Activity DBP

Affected roads Rd_DAC and Rd_DBP

	Length_Rd_DBP (m)	Length_Rd_DAC (m)	Total Length (m)	One Way Miles	#Truck round trips/day	VMT/Day	PM10 (tpy)	Segments	PM10 per vol source (tpy)
Using Rddv Lengths	952.2	349	1301.2	0.80853	7.3	11.80451	2.035836	112	0.0181771
Using Modeled Lengths	616	350	966	0.60024	7.3	8.763571	1.511387	112	0.0134945

Road Activity DCC

Affected roads Rd_DCC and Rd25

	Length_Rd_DCC (m)	Length_Rd 25 (m)	Total Length (m)	One Way Miles	#Truck round trips/day	VMT/Day	PM10 tpy	Segments	PM10 per vol source (tpy)
Using Rddv Lengths	399.9	106.7	506.6	0.31479	6.9	4.344056	0.749187	71	0.0105519
Using Modeled Lengths	501.4	105.5	606.9	0.37711	6.9	5.20412	0.897516	71	0.0126411

4. The Department believes there is a very minor error on the source parameter for Road Rd7 which is listed as "CTF Road: Middle CTF to junction soil stockpile road". In Appendix E: volume source catalog for haul and access roads, the initial horizonal dimension for CTF roads is listed as 7.44m. The modeling inputs for RD7 have the initial horizonal dimension set to 4.51m – which is the value assigned to service roads. The determination is that a larger initial horizonal dimension should cause a lower concentration since the initial plume will be more dispersed, so no negative impact on the modeling results.

Correction: Please note the correct statutory date has been changed to May 18, 2018.

Upon confirmation of these items and as long as nothing else arises in the review process, the Department can still likely continue to issue a preliminary determination by day 40 of the date from the April 20, 2018, submittal (May 30, 2018). However, if any information submitted in response to this letter is found to be substantive, we may determine the date of that response as the "application complete" date. The Department will need to have a response received by May 18, 2018, which is the statutory deadline for application complete from the April 20, 2018, submittal date.

The Department is available for additional follow-up discussions as needed. If you have any questions or concerns, please contact me by phone at (406) 444-6711 or by e-mail at chenrikson@mt.gov.

Sincerely,

Craig Henrikson

Craig Henrikson, P.E.
Environmental Engineer
Air Quality Bureau
(406) 444-6711

cc: Debbie Skibicki, Bison Engineering Inc., dskibicki@bison-eng.com
Julie Merkel, Air Quality Bureau
Kristen Martin, Air Quality Bureau

From:	Sutliff, Debra
To:	JShanahan@sandfireamerica.com
Cc:	Henrikson, Craig; Merkel, Julie; Martin, Kristen; "dskibicki@bison-eng.com"
Subject:	MT DEQ - TINTINA MONTANA INC - CORRESPONDENCE CORRECTION ISSUANCE
Date:	Tuesday, May 08, 2018 3:35:00 PM
Attachments:	5200-00_2018_05_8_COR1.pdf

The Montana Department of Environmental Quality – Air Quality Bureau has issued a Statutory Date Correction to the attached correspondence.

If you have any questions concerning the correspondence, please contact the Department.

Thank You,

Julie Merkel
Permitting Services Section Supervisor
Montana DEQ, Air Quality Bureau
Phone: 406-444-3626
Email: jmerkel@mt.gov