

Information Request 9

Information Request 9

9-1

Response to Information Request 9

Response to Information Request 9a

9-2

IR 9 – Atmospheric Environment: Determination of Significance of Residual Effects

References:

EIS Guidelines, Section 2.7.2.2

EIS, Table 2.7.2.2-7 (Project Residual Effects Assessment Summary for Criteria Air Contaminant (CACs) for New Prosperity)

EIS, Table 2.7.2.2-8 (Summary of Effects Assessment for Atmospheric Environment)

Related comments:

CEAR # 265 (Health Canada)

Rationale:

The EIS Guidelines require the Proponent to use appropriate Air Quality Dispersion Models to assess the potential effects on human health at sensitive and other receptors.

Table 2.7.2.2-7 summarizes project residual effects for CACs and the corresponding text (p. 561) notes that “particulate matter is predicted to exceed the applicable objectives or standards”. Table 2.7.2.2-8 concludes that no significant residual effects are predicted.

One of the key objectives of maintaining Fish Lake is to preserve existing recreational pursuits, including fishing. It can be assumed that using Fish Lake for this purpose will include using all areas of the lake, including the north end where emissions are expected to exceed regulatory objectives. It can also be assumed that recreational fishing and fishing for traditional purposes will frequently involve overnight use, sometimes for extended periods of time.

Taseko’s conclusion of “no residual effects” does not appear to take into account prolonged periods of inversions or other adverse weather conditions and potential impacts on Fish Lake users who remain at the Lake for extended periods of time.

Information Requested:

The Panel requests that Taseko:

- a. Discuss how the conclusion of “no significant residual effects” would change under periods of inversions or other prolonged adverse weather conditions.

Information Request #9a

Discuss how the conclusion of “no significant residual effects” would change under periods of inversions or other prolonged adverse weather conditions.

Response Summary

The conclusion of “no significant residual effects” would not change under periods of inversions or other prolonged adverse weather conditions. This is because the simulations conducted included periods of inversions and other adverse weather conditions, and, to be conservative, used the highest predicted CAC concentrations recorded.

Discussion

For the dispersion simulations, the New Prosperity mine emissions were subjected to the entire range of meteorological conditions, on an hour-by-hour basis, found within the year 2002 simulation period. Thus the dispersion simulations for each receptor in the assessment area included all the periods of inversions and other adverse weather conditions found in that year.

For all of the hourly, daily and annual time durations, the highest predicted concentrations for each receptor were recorded and assessed. For receptors near the mine boundary, the most substantial effects occurred during periods of temperature inversions when the ability of the atmosphere to disperse was reduced. For sensitive receptors further away from the mine, the most substantial effects occurred when higher wind speeds carried the emissions to more distant receptor locations, dispersing them along the way.

The determination of “no significant residual effects” considered periods of inversions and other adverse weather conditions, and, to be conservative, used the highest predicted CAC concentrations recorded.