

November 28th, 2014:

Ms Diane Howe,
Deputy Chief Inspector, Reclamation and Permitting
Ministry of Energy and Mines
Victoria BC

CC: George Warnock & Heather Narynski

RE: Response to Chief Inspectors' Orders – Dam Safety Inspection Report Recommendations

Ms Howe,
Please find below a table of recommendations, comments and an action implementation schedule from the **2014 AMEC Dam Safety Inspection Report completed by AMEC Foster Wheeler**.

Summary of Recommendations for 2014 DSI

No.	2014 DSI Recommendations - AMEC	Commitment and Action Schedule
2014-01	Full implementation of the closure instrumentation monitoring plan should be completed, to allow for remote data acquisition and transmission, as per the Reclamation and Closure Plan.	Further automation of the instrumentation monitoring equipment was completed in October 2014, after the 2014 DSI was completed. The automation of the hardware is now complete. Continued refinement of the system will be undertaken throughout the winter of 2014/15.
2014-02	Upon completion of monitoring system commissioning and recharge of the reservoir to the full service level, a full review of the closure seepage conditions and corresponding dam stability should be performed to set appropriate thresholds for all instrumentation going forward. Such a review should also include evaluation of the sufficiency of the remaining functional instrumentation in the context of long-term dam safety monitoring and a replacement schedule developed as appropriate to facilitate long-term closure planning.	This action will be completed once the reservoir reaches full service level. The review will include an evaluation of the validity of the remaining instrumentation. This is expected to occur during the 2015 DSI.

No.	2014 DSI Recommendations - AMEC	Commitment and Action Schedule
2014-03	The settlement monitoring prisms in the south abutment area should continue to be monitored throughout 2014 and 2015 as the pond level recharges to El. 1506m.	Regular monitoring is undertaken through walk-around inspections and prism surveys.
2014-04	The first subsidence analysis using InSAR was completed in 2013 which indicated negligible displacements of the dam surface. It is recommended that subsidence analysis be performed bi-annually going forward with the next analysis completed in the summer of 2015.	This subsidence analysis will be scheduled in the summer of 2015, and will be completed bi-annually going forward.
2014-05	To more accurately monitor dam seepage and diversion ditch (R1, R2 & L2) flows, it is recommended that the flow monitoring flume "WQ-SRPP" be cleared of accumulated sediment and monitored in concert with the gravity pipeline flow monitor on a regular basis with the data provided to AMEC for inclusion in the annual review reports.	WQ-SRPP will be cleared of any accumulated materials in the summer of 2015. The gravity pipeline flow will be monitored and the results of these observations provided to AMEC on a bi-annual basis, or as required by the conditions of the diversion drain.
2014-06	The dam face should continue to be monitored throughout successive freshet and growing seasons with remedial measures developed and implemented as required to ensure the continued stability of the vegetative cover over the long term.	Regular monitoring is undertaken through walk-around inspections. Action is on-going.
2014-07	The erosion of the downstream slope of the reclamation berm access road should be filled in and covered with overburden. The rough and loose surface texture should be re-established and planted according to the RCP prescriptions. The drainage swale at the base of the slope should be cleaned out, and the surface of the reclamation berm road re-graded at minimum 3% to slope back towards the dam and drainage swale. <i>The repair was completed by September 16, 2014.</i>	This work has been completed. Action was taken on the 16 th September. No further action is required.
2014-08	All trees are to be removed from the dam crest between 13,320E and 13,345E over the entire length of the dam to prohibit root ingress into the dam core.	This will be completed in the summer of 2015. Note: the trees are seedlings and pose no near-term concern.
2014-09	The dead trees identified in the shallow water to the south of the spillway inlet should be removed.	It is planned to remove these trees once the pond water freezes. This action is expected to be completed by March 2015.

No.	2014 DSI Recommendations - AMEC	Commitment and Action Schedule
2014-10	Following commissioning of the spillway the reclaim pipe that is connected to the control structure should be removed with any repairs to the spillway channel as required.	The pipeline will be removed once the Spillway is commissioned and we are satisfied with the performance of the spillway. Timeframe expected is 1-2 years.
2014-11	An update to the OMS manual should be performed following completion of the instrumentation monitoring system and commissioning of the closure spillway (coincident with reaching the full service level). Updated threshold levels and instrumentation maintenance requirements following recommendation 2014-02 should be included in the next update as well as detailed procedures for vegetation maintenance in exclusion areas (2014-08).	The OMS Manual will be updated by the end of 2015. All recommendations that have been suggested to improve this document will be undertaken.
2014-012	North Diversion Dam spillway erosion and sedimentation should continue to be monitored during any future spillway use with maintenance performed as required to maintain the spillway and access road in usable condition. Sloughing about the North Diversion Conduit (NDC) intake and water accumulation in the NDC valve chamber should be monitored as part of routine inspections as outlined in the OMS Manual.	Recommendations are noted and they currently and will continue to occur. Any remedial work will be completed as required. Road maintenance is carried out as required by the care and maintenance personnel on site.
2014-013	Consideration should be given to either repairing the eroded areas of the East Diversion Intake (EDI) access road or to decommissioning of the EDI, East Diversion Conduit and access road as per the Tailings Storage Facility Reclamation and Closure Plan. If the EDI is to remain with its current access restrictions then this should be reflected in the next update of the OMS Manual.	A decision on the course of action will be undertaken in 2015. The OMS manual will be updated accordingly and will reflect the operating conditions.

Kind Regards,



Damien Bilsborow
Director, Sustainability
AuRico Gold Inc.