Further Quality Assurance Reviews of SKB's Copper Corrosion Experiments

Proposed Work

The copper canister is a key engineered barrier in the KBS-3 spent nuclear fuel repository concept. The copper is intended to provide a corrosion barrier that protects the spent fuel from water for at least a million years after disposal. SKB's demonstration of the corrosion resistance of the canister in the upcoming SR-Site repository licence application will be supported by the results of past and ongoing copper corrosion tests. In order to understand and gain confidence in the reliability of SKB's copper corrosion data, Galson Sciences Ltd (GSL) is supporting SSM in a review of the quality of SKB's copper corrosion tests.

An initial quality assurance (QA) review of the tests on copper coupons that have been undertaken as part of the Long Term Test of Buffer Material (LOT) was held at SKB's Hard Rock Laboratory at Äspö. Following that review, the need for a further meeting was identified with the aim of undertaking QA reviews of:

- The analysis undertaken to measure the extent of corrosion observed on the copper coupons used in the LOT tests.
- The copper corrosion tests that are being undertaken in the ongoing MiniCan project at Äspö.

This proposal is for GSL staff to participate in a meeting in Stockholm to undertake these QA reviews. Review findings will be documented on QA checklists (as used in previous QA reviews) and these will form part of GSL's report on the QA review of SKB's copper corrosion experiments.

Dr Tim Hicks (Principal Consultant) and Dr Tamara Baldwin (Consultant) will undertake the proposed work.

Costs

An estimate of the effort and costs for the work is provided in the following table:

	Effort (days)	**Cost (SEK/day)**	**Cost (SEK)**
Principal Consultant	3	10,560	31,680
Consultant	3	6,720	20,160
Travel and subsistence			10,800
Total			**62,640**