

Questions and Document Requests for SKB (v3, 28/10/2020)

Questions for SKB in advance of the first project meeting on QA in copper corrosion analysis, which is focussed on the over-arching project management system:

1. If retrieval and analysis of S2 and A3 is managed via a dedicated project, how has the LOT project as a whole been managed (i.e. through conception, set-up and long-term running of LOT)?
2. Were additional milestones added for this project? Were the tollgate decisions and/or criteria revised for this project? Gates T0 to T3 should have taken place according to the PMP programme. Is it possible to see the milestone reports prepared to support tollgates T0 to T3? What decisions were made at each tollgate for this project? Where are the outcomes of the tollgate decisions recorded?
3. How were risks identified at project initiation? How was learning from previous LOT retrievals and analyses accounted for when planning the project (e.g. risk of damaging parcels during retrieval, any issues in preparation of coupons and tubes for copper corrosion analysis, and possible mitigation measures)? How often is the risk register reviewed and have any risks been added since the start of the project? Have any of the risks been realised?
4. What are the findings of the project assurance reviews undertaken for the tollgates so far? Is a record of lessons learnt during the course of the project so far maintained?
5. The project charter notes that there are a number of external stakeholders that want to observe the project (including potential collaboration with Posiva) and that this needs to be taken in to account when planning the project. How were stakeholder needs accounted for in planning the project? Were collaboration activities explored with Posiva before TG1, as required? Was any consideration given to the inclusion of an impartial observer at different stages of the project (e.g. during parcel recovery and analysis) and what was the outcome of such considerations?
6. What procedures were applied to the dismantling of parcels to ensure that there was no damage to the Cu coupons when they were extracted from the bentonite blocks?
7. What procedures are used to protect the condition of the Cu coupons and Cu tubes during transport to and storage at laboratories?
8. Were any problems encountered or deviations from the activity plans for retrieval of the parcels and their transport and analysis identified?
9. How do you ensure that, before work is undertaken, suppliers have appropriate QA processes in place that are at least equivalent to SKB's?
10. To what extent are contractors regarded as separate/independent of SKB?
11. Were audits done of the management/QA procedures used by laboratories? Are there records of audits?
12. Were the specific QA procedures, measurement methods, and techniques to be applied in the project discussed and agreed with the suppliers before the analysis was undertaken?
13. How has the management process evolved over the course of the LOT programme and what are the implications of the changing QA system (e.g. if improved quality

management systems have been introduced, are there implications with regard to the reliability of previous parcel analyses)?

14. The project charter and PMP require that all data generated during the project's implementation, and which form the basis for the project's results, must be traceable and stored in SKB's databases. How do you ensure this is undertaken? What data have been submitted to the databases as a result of this project so far (all primary data or just results of analyses)? What QA procedures are applied before data are accepted for inclusion in SICADA? What records are kept on the project file for data submitted to SKB's databases?
15. To what extent was SKB involved in the FEBEX experiment and the copper coupon measurements for that experiment? Was any learning from FEBEX brought into this project, including the analysis methods and understanding of conditions and corrosion mechanisms?

The following documents are proposed to be requested from SKB. I have indicated the reasons why I am requesting the noted document in case it doesn't cover what I think it covers, in which case I would request the appropriate document instead.

#	Document (Swedish)	Document (English)	Driver for requesting document
1	PIN LOT, SKBdoc id 1702938	Project Initiation Note	This should state the reasons for the project, define the responsibilities and document any deviations or additions to the project model instruction. Should also set out the project assurance reviews to be undertaken for each tollgate.
2	1860884 - Kommunikationsplan KBP1019	Project communication plan	The PMP notes that retrieval and analysis of these LOT parcels is of significant public interest, of value for SKB's credibility and the viability of the KBS-3 concept. The PMP also notes that bentonite samples may be provided for those who make a request, but this will not be advertised. It is of interest to see how these aspects are proposed to be handled in the communication plan.
3	1859185 – Risklista KBP1019 LOT	Project risk list	Key risks include, for example, potential damage to the coupons during retrieval. What other risks have been identified, how are they to be mitigated during the project and what learning has been reflected from previous LOT retrievals?
4	1859797 – KBP1019 – Brytning av LOT, arbetspaket WP1 Brytning	Mining/retrieval WP	Specifies the work required to retrieve the A2/S3 parcels and pass the copper onto the second WP.
5	1419904 - Underhåll av Äspölaboratoriet	1419904 - Maintenance of the Äspö HRL	Hantering av aktiviteter vid Äspölaboratoriet (1053624) notes that it does not cover RDD's; these are covered by this requested document.
6	1863807 - AP RD KBP1019 – 19 - 009 – Friborring och upptag av LOT-paket S2 och A3	Free drilling and receiving of LOT packages S2 and A3	Consider if any influence on the retrieved samples and analysis.

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7		Activity plans for the copper analysis (deliverable 1 of the copper WP)	Understand activities planned for the copper sample analyses.
8	1063679 - Vågar, termometer och Milli-Q-anläggning	Scales, thermometer and Milli-Q system	Understand the requirements and uncertainties associated with such measurements in the project.
9		Method descriptions for the copper analysis undertaken	What method descriptions exist for the copper analysis? If these were undertaken under a contractor's QA process, how do they assure the method used?
10	SD-135 Riktlinje för informationshantering	Guideline for information management	Understand the requirements and processes for information management
11	SD-134 SKB:s informationshanteringsplan för informationstyper som är företagsövergripande	SKB's information management plan for information types that are company-wide	Understand the requirements and processes for information management
12	SDB-120 Informationshanteringsplan för avdelning B	Information management plan for department B	Understand the requirements and processes for information management
13	SD-082 Datahantering primärdata	1202022 / SD-82 Data management primary data	Understand the requirements and processes for data management
14	1053152 - Dataleverans till respektive från Sicada och GIS	1053152 / SD-111 data delivery to/from SICADA or GIS	Understand the requirements and processes for data management
15	1251512 - Avdelning R informationshanteringsplan	Section R information management plan	Listed on the SKB presentation (18/09/20) as a procedure for handling of data and information
16	1210369 - SKB Gemensam informationshanteringsplan	SKB Joint information management plan	Listed on the SKB presentation (18/09/20) as a procedure for handling of data and information
17	1050857 – Sakgranskning	Case review	Expected to set out the requirements for review of public reports
18	1394728 - Checklista - Granskning och kvalitetskontroll av publika rapporter inom RS	Checklist - Review and quality control of public reports within RS	Interested to see what quality control steps are required for public reports
19	1255926 - Samordning av arbetsmiljö vid anläggningen Äspölaboratoriet	1255926 - Coordination of the working environment at the Äspö HRL facility	Interested to see what requirements this places on contractors and how these are met
20	22932 - Analys av korrosionsprover från fältförsöka (LOT), Rise Kimab AB	Analysis of corrosion samples from field trials (LOT), Rise Kimab AB	To understand the copper analysis work scope specified for the contractors.
21	23867 - FIB och TEM på kopparsprover Swerim AB	FIB and TEM on copper samples Swerim AB	To understand the copper analysis work scope specified for the contractors.
22		Swerea KIMAB AB, 2017, Audit report SKBdoc ID 1610897	Interested to see the focus of the audit and if there any findings that may impact the work undertaken
23	SD-079 Leverantörsbedömning	SD-079 Supplier assessment	What assessment/audit activities are undertaken when selecting a supplier to ensure they can appropriately meet project needs?

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24	SD-076 Leverantörsrevision	SD-076 supplier audit	What assessment/audit activities are undertaken when selecting a supplier to ensure they can appropriately meet project needs?