MINUTES OF THE APT STEERING COMMITTEE MEETING
23rd APRIL 2004
GAUTRANS LABORATORY

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Action

1 WELCOME AND APOLOGIES

Ms Sadzik welcomed the members of the Steering Committee.

Prof Jenkins, Messrs Teuns Lewis and Renaldo Lorio and Ms Lesley Johnson tendered their apologies.

2 MINUTES OF PREVIOUS MEETING

The minutes of the previous meeting were accepted as a true reflection of the meeting.

3 MATTERS ARISING

Pg2: ES and HT Relook the format of the first level of the report. The report ready for review has been changed slightly. All information not directly related to the information is included in the appendices, which will be circulated for comment.

Pg2: A spreadsheet on the objectives of testing and other information and asked for comments. The CSIR have received comments from Ms Sadzik and incorporated. The summary has been circulated for comment. Will distribute the new spreadsheet for comments.

Pg3: Some data has been received from Transportek on the triaxial test. Messrs Theyse and Lorio have agreed to exchange data.

Pg3: Prof Horak – triaxial. No information was available from the University of Pretoria.

Pg3: Mr Theyse has prepared a report on the overall picture related to research on LVRs.

Pg3, point 7: STEP meeting – on the list, but not approved as yet. Table 1 has been approved, but table 2 has not been approved yet. CSIR to consolidate the existing projects and check on the remaining funds. Outstanding item. HT

Pg6: Strategic planning – document dealt with in this meeting.

4 STATUS REPORT ON PROGRESS RELATED TO PRIORITIES AND ACTION PLAN

Ms Sadzik gave a presentation with regard to the status on progress related to priorities and an action plan. For record purposes, the presentation is attached in Appendix A.

5 APT/HVS STRATEGY

5.1 Review of draft discussion document

Mr Sampson gave a review of the document, of which all present were given a copy for discussion.

5.2 Comments from Focus Area Coordinators

Table 1: Summary of Cold Mix Recycling Projects (HT)

- Mr Sampson will check on the owner of the vision/mission.
- Comments on the vision and mission, should be forwarded to Mr Sampson.
- It is important to do LTPP – as a reality check. Do not underestimate the difficulties for long-term road experiments. Should endeavor to minimize LTPP sections and sign the sections.
- Impression of the area is vital and investigation should be added to the table. Issue on what can be put on top and support. Post crack performance.
- Clarity on “Field” and “LTPP”. LTPP embraces field testing. Mr Sampson will put a definition in on the headings.
- APT sections – durability. Lots of work being done with MMLS3, could be added.
- Mr Sampson will redefine (short-term) – formal process and focus. Implications. LTPP and STPP.
- A section to be added on dissemination of information and training.
- Addendum on TG2 on how to specify.
- Add: Appropriate surfacings to Table.
- Mr Theyse to look at how to incorporate support.

- Working towards the full solution of which HVS/APT is a part of.
- Amend first item: Monitoring structural composition and material properties.
- Could change research need to include cement. The issue: influence of the new cements. Mr Theyse to re-look at the focus area and see how the cement issue can fit it as well as into the project actions. Think about it and come back with a proposal. Could be initially, a lab study. Change - the 3rd line.
- Change the title of the Table to coincide with the PIARC titles - CIPR

Table 2: Summary of HMA Projects

- Mr Verhaeghe to modify the Table as suggested/discussed. Refocus the Table.
- Resistance to fatigue – add a row for Reflection Cracking.
- HVS is a major component in terms of fatigue and
- Need alternative friction courses as a high priority.
- Need stronger focus on priority.
- Need for SA test tract facility?

Table 3: Summary of Low Volume Roads Projects

- Very little related to HVS and APT testing.
- Related to low volume surfaced roads.
- Amend Table to include cement, where/if appropriate.

Table 4: Summary of VPI Projects

- This Table is virtually all related to HVS testing.
- In terms of concrete, a lot is funded through C&CI.
- Additional area around performance of friction courses.
- Not only fatigue performance and response to water on the surface. Tyre pressures – concentrate specifically on that area.
- Friction course, high tyre pressures, MMLS – if future tyre pressure tests, … (Dennis). HVS, calibration with MMLS. Add as a separate section? Uncomfortable with functional parameters, because don't know what getting. Look at what is happening to the fatigue.
- Some things that MMLS3 can do better than the HVS. Look at various capabilities and possible linkages. Appropriate technology.
- Yes, HMA is a priority. Look at how it should be done and how various components can be put together.
- VPI and
- In terms of HVS allied to other APT strategy, looking at HMA allied to performance of the layers.
- How, where, focus, over what period?
- Must look where the money is to determine priority.
- Concrete pavements – water getting in and causing some damage.
- MMLS, it must be borne in mind that there a broad applications.
- Need to look at appropriate seals on top of foam.

Table 5: Summary of Concrete Projects

- Focus area coordinator to amend table as required.

5.3 Details of HMA Testing Proposal

Options were discussed for establishment of an HVS test site.

Do a comparison between various tests available. Test the application of the MMLS, HVS and other devices. Protocols will be to be compiled. Do tests under defined environmental conditions. Will give both ranking and performance predictions.

Design a matrix around these issues. Testing facilities against various mixes and overlapped by priorities/aspects.

1. Testing matrix – experimental design

Mr Verhaeghe presented the details of HMA Testing proposal (attached in Appendix B).

- Build 1 test section, with a number of friction courses, with an immediate effect. In parallel, do a number of mixes, including MMLS, wheel tracking. Do a ranking.
- Field construction is different from lab. Do field sections up front. Have field-produced material to test. Lab-prepared samples, as well as field.
- ES will have to have a meeting with the Gautrans Construction Unit for use of an existing road.

Mr Verhaeghe will look at a detailed plan on how to make this happen (experimental design and programme). Matrix on how to do this, with cost. The detailed plan will be circulated for comment.

Ms Sadzik will identify a road and section within the next 6 months.

Maintenance period July-August. New testing will start in September. Window of 5 months to get the plans in place. Construct to at least a base level. Do one that is going to be built, get MMLS on it. MMLS on other mixes and prioritised and get a consistent line of testing. Section of continuous grading to be long enough for friction courses. Do further testing in 5 years time and look at effects of ageing and other environmental factors through time. To add to the complexity, fatigue testing requires another design. Should spawn LTPP sites. Need a secure site and easily reachable. P154 – east of Silverton (right past old test site) could be a possible test site.

If foam is done as a Base, some input into testing should come out into TG2, as well as ETBs.

5.4 Action Plan

Based on the discussions, the focus area coordinators to redesign the tables which Mr Sampson will summarise. Any comments on the document should be sent to Mr Sampson for modification.

Messrs de Beer and Steyn to think through the issues to be built in. The test pit

issue should be done before the HVS plan. Test pit test will take approximately a month which allows one month extra for planning of the HVS testing. Could put the MMLS on the test pit as well.

A preliminary start of a plan as it was agreed that the HVS is a priority. Be aware that the document is a discussion document on information available and will be updated as required. Comments on the document should be sent to Mr Sampson by end May 2004. Prof Hugo and Mr Verhaeghe will discuss certain aspects of the plan.

A permanent site where test sections can be built, but will not exclude the HVS from moving to other sites.

6 REPORTS FOR COMMENT AND REVIEW

Review of reports as shown in Appendix C.

7 DISTRIBUTION OF INFO FROM HVS PROGRAMME

Ms Sadzik will organise a workshop for mid June on LVR.

8 COORDINATION OF INTERNATIONAL REPRESENTATION FOR APT

Exchange of information, internationally should be coordinated through this Steering Committee as South Africa's opinion as a whole.

8.1 Cost 347

Feedback has been given to Cost 347 by individuals from South Africa, which are not part of the Steering Committee or the International Alliance. A communication should be made that the Alliance has a protocol and coordination must be done accordingly.

Ms Sadzik will send a communication to Cost 347, through Vince Janoo regarding the formal structure in South Africa (APT Steering Committee) and the International Alliance.

8.2 TRB

9 GENERAL/ANY OTHER BUSINESS

The Internal APT synthesis has been published and is available on line. Any persons requiring further information should contact Prof Hugo.

10 NEXT MEETING

Date of the next meeting to be advised.

Appendix A

STATUS REPORT ON PROGRESS RELATED TO PRIORITIES AND ACTION PLAN

Ms Elzbieta Sadzik

Appendix B

DETAILS OF HMA TESTING PROPOSAL

Mr Benoit Verhaeghe

Appendix C

REPORTS FOR REVIEW

Mr Hechter Theyse