



**Audit of the TB 99**  
**questionnaire**

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## **Executive Summary**

The TB 99 questionnaire study aims at assessing which factors could influence the propagation of TB in cattle. Following an audit which looked at the whole process from data collection to computer data handling an audit report was produced in 2003. This second report concentrates mainly on assessing the implementation of activities following the Auditor's recommendations and the Government's response to the 2003 audit report. In addition a selected sample of Animal Health Divisional Offices and farms were visited. The TB 99 team gave its full support throughout the audit activities.

The Auditor found that most recommendations had been implemented. The TB99 working group had produced a revised questionnaire, which is simpler, clearer and which has been tested in a pilot study. Training took place throughout the year both with representatives of the different ADHO-s and also in the ADHOs visited. The visits to the farms went well and smoothly, the questions were clearly explained by the interviewers. The farmers had ample time to answer the questions and in no instance were they influenced by the Officer in their answers. In the AHDOs visited (Gloucester and Worcester) the TB99 teams were well organized and each member of the team knew what their role and function was within the project. The atmosphere in both AHDOs was very good and there was a good team spirit.

At VLA the recommendations made by the Auditor have been implemented, are well documented and self-explanatory.

There are two remaining issues that should be addressed: The first of these concerns the queries and the time taken for their resolution both at VLA and in the AHDOs. The second is that effort needs to be put in to reduce the number of Officers completing TB99s.

In addition the VLA should continue to put effort into documenting, dating and signing their documents. Having a single system for the administrative data in all AHDOs is highly desirable. This is planned for 2005. There should be continuous coordination and communication within and between the AHDOs and the VLA. A meeting should be held between all the key players, early in the project to identify any problems.

The issue of the validity of the movement data collected as part of the TB99 project is still ongoing.

Overall, the Auditor found a great deal of improvement in terms of team spirit, training, handling the questionnaire on the farms as well as in terms of

documentation.

All the above-mentioned improvements constitute a good basis for the quality of the data collected in the new Case Control Study 2005 (CCS2005).

## **1. Introduction**

The Independent Scientific Group (ISG) appointed to advise DEFRA on the TB 99 questionnaire wish to see all aspects of the Randomised Badger Culling Trial (RBCT) audited. The audit of the TB 99 questionnaire forms part of the wider audit of the whole RBCT. One previous audit has taken place in 2003 and has led to an audit report.

## **2. Rationale**

The rationale is to have reasonable assurance that the conclusions or recommendations made at the end of the trial are based on the analysis of data collected which is as complete, accurate and reliable as possible.

## **3. Material and Methods**

### **3.1 Material**

All pertinent material was available for the Auditor including the content of a training session, which took place during the year.

### **3.2 Method**

#### **3.2.1 *What could be done***

The Auditor assessed

- The implementation of the recommendations made in her previous report including the answer of the government.
- Processes in place to ensure the proper completion of the questionnaires in terms of both quantity and quality (including queries handling).

The VLA was visited on 3 occasions.

2 AHDOs were visited as well as 2 farms. At both farms the AHDO representative

completed the questionnaire with the farmer in front of the Auditor.

### **3.2.2 What was originally planned and could not be assessed was**

A training session for the Veterinary and Animal Health Officers who carry out the interviews with the farmers. The material used for training purposes was provided to the Auditor, but the Auditor did not attend the actual session. Verbal feedback on the training sessions was given to the Auditor at a later date – see paragraph 4.2.1.1.

## **4. Findings**

### **4.1 Visits to VLA**

#### **4.1.1 VLA's response to recommendations in the 2003 audit report**

During the first visit the Auditor was provided with a folder with a covering page summarizing the work, which had been done since the first TB 99 audit report.

#### **History of TB99 and modification made**

The changes between version 1 and 2 of the questionnaire are now well documented. The changes in questions numbering or wording, as well as the rationale behind these changes, are set out in this document and are self-explanatory.

***The Auditor recommends that a similar document should be created for the new CCS05 study.***

#### **Changes in control allocation**

The changes over the years in the way controls were selected and allocated is now summarized in a clear document.

#### **Logging changes to the database**

The Auditor had previously recommended that any changes to the database should be documented. The VLA had considered using the product SourceSafe, which is used for software version control, for tracking changes to the existing database and for the development of the new database for CCS2005. However, it was found to be

incompatible with Microsoft Access development, hence any changes made to the database are now documented and the details logged on the VLA server VLA25 at: \\TBDATA\TB99\Version2\Documents\Changes\Log.

Other changes that are not directly linked to the database are logged on the same server at: \\TBDATA\TB99\Version2\Documents\Changes\Log of Changes.

***The Auditor recommends that any changes made to the database during the lifetime of the new CCS05 study should be logged in a similar manner.***

#### **Data entry fields- Empty fields, Questionnaire data not entered on the database**

Following a meeting between the ISG Research Assistant and the VLA Database Manager with responsibility for TB99, a special section has now been added to the TB99 Quality Control (QC) Document (page 17). This clarifies this issue.

A document has also been created that lists which questionnaire data is not entered in the database.

#### **Control Allocation Procedure at present**

This is now also described in the TB99 QC Document (page 9).

#### **Computer based administrative queries**

These are described on page 16 of the TB99 QC Document. They focus on the problems regarding controls, for example, listing controls that are received at the VLA but has no record of being allocated by the VLA or acceptance by the AHDO.

***The Auditor recommends that the computer-based checks should be expanded for the new CCS2005 study to include more non-control checks.***

#### **Data Entry Procedures**

These procedures are up to date and are located on the VLA Server Vlafiler1: \\R&D\CERA\TBGroup\TB99.

#### **Validation constants**

The Auditor had suggested that the validation constants (or boundary values) used in the database data entry procedures should be documented. They should also be reviewed by other members of the project team. The constants have been added to the QC document (page 24). The list has not yet been reviewed by the project team.

***The Auditor recommends that a list of the validation constants for the new CCS05 study should again form part of the VLA's new CCS2005 QC document.***

### **10% Quality Check**

Data checking is still ongoing and code has been written to identify any forms where an error rate of more than 5% is detected (no forms have yet had a data entry error rate above this figure, the highest yet detected being 1.35%).

***The Auditor recommends that for the CCS2005 form a method of detecting individual questions that give rise to a high systematic data entry error rate is considered and if practically possible is implemented. This would allow problem questions to be identified at an earlier point in the study.***

### **Comments and Recommendations:**

*The Auditor would like to acknowledge the efforts made by the team at the VLA to implement the recommendations made in the 2003 report. The VLA has implemented all the recommendations made by the Auditor and the quality of the documentation is of a high standard.*

***The TB99 QC document is now version controlled. It is also recommended to include a summary page which documents any changes (including the author of the changes) made at future versions. The VLA QC document is available from the VLA on request.***

### **4.1.2 Preparation of visits to AHDOs**

All contributing Animal Health Divisional Offices (AHDOs) data were reviewed in terms of their contribution, the number of queries raised by their questionnaires, the reasons they had given for not accepting a control and the number of Officers filling out questionnaires. The Auditor did not review any TB99 data from outside of trial areas but concentrated on the culling trial areas B, D and E.

A number of printouts were also generated which constituted the basis for some of the discussions in the AHDOs.

### 4.1.3 Movement analysis

*In addition to the above the VLA have undertaken an initial analysis of TB99 movement data in comparison with Cattle Tracing System (CTS) data. The findings of this analysis and recommendations form part 4.4 of this report.*

### 4.2 Visit to the AHDOs and to the farms

Originally, it was expected that visits would be made to Gloucester, Worcester and Exeter. However, because it was decided that more time should be spent on consultancy activities relating to the new study, only the two highest contributors (Gloucester and Worcester) were visited. Table 1 shows the relative contribution made by each AHDO during 2004.

**Table 1 The Number of questionnaires completed for triplets B,D,E as of 14 January 2005**

ADHO Name	Case or Control	No Completed
EXETER	Case	25
EXETER	Control	19
GLOUCESTER	Case	42
GLOUCESTER	Control	52
TRURO	Case	12
TRURO	Control	5
WORCESTER	Case	39
WORCESTER	Control	32
<b>TOTAL</b>	<b>Cases</b>	<b>118</b>
<b>TOTAL</b>	<b>Controls</b>	<b>108</b>

Table 2 shows the number of refusal per AHDO as well as the reasons for refusal.

**Table 2      The type and number of control refusals in 2004**

<b>AHDO Name</b>	<b>Reason Description</b>	<b>No. Refusals</b>
EXETER	Doesn't want to take part	5
EXETER	Not in trial area	3
GLOUCESTER	Doesn't want to take part	3
GLOUCESTER	Movement restrictions	2
GLOUCESTER	No (eligible) stock	10
GLOUCESTER	Not full year since date initial visit	1
TRURO	Doesn't want to take part	2
TRURO	Movement restrictions	1
TRURO	Not in trial area	1
WORCESTER	Doesn't want to take part	6
WORCESTER	Movement restrictions	2
WORCESTER	No (eligible) stock	4
WORCESTER	Not in trial area	4
WORCESTER	Overdue test	1
<b>TOTAL</b>		<b>45</b>

#### **4.2.1 In Gloucester**

##### **4.2.1.1 In the AHDO**

Those present:

From Gloucester AHDO:

Six AHDO staff – the Divisional Veterinary Manager (DVM), two Veterinary Officers (VO), one being the TB99 lead VO, an Executive Officer (EO), an Administrative Officer (AO) and an Administrative Assistant (AA).

From elsewhere:

The SVS TB99 lead VA, the VLA Data Manager and the Auditor.

- Processing of TB 99 questionnaires and tracking procedures

A meeting took place at which the AO showed how the data was entered in the database once a breakdown had been confirmed and how the progress of the TB99 Questionnaire was followed.

**Comments and recommendations.**

*The tracking system in place is good and the AO was very familiar with the procedures. It seems that each office has a different system in place to track the TB99 process and it might be worthwhile thinking of a uniform system for all AHDO's especially also in the light of new areas filling in the questionnaire (It is planned to have a uniform TB99 administrative tracking system in place for the CCS2005 study)*

- Acceptance or refusal of proposed controls

In Gloucester 64 controls had been accepted, 16 refused and 5 were pending at the time of the audit. The main reason for refusals was that there was no eligible stock.

*Comments:*

*These figures are good with very few refusals by farmers not wishing to partake in the study. One of the reasons for the high acceptance is the persuasive personal phone calls made by the AA.*

- Staff having completed the questionnaire

At the time of the report 21 Officers (20 SVS and 1 ADAS) had completed a questionnaire, see table 3 below, with a mean average of 4 forms being completed per Officer. However this figure masks a wide variation.

**Table 3      Number of forms completed by Officer**

AHDO Name	Year	Organisation	TBOfficer1	No. Completed
GLOUCESTER	04	ADAS	ADAS Officer 1	13
GLOUCESTER	04	SVS	SVS Glos, Officer 1	11
GLOUCESTER	04	SVS	SVS Glos, Officer 2	10
GLOUCESTER	04	SVS	SVS Glos, Officer 3	8
GLOUCESTER	04	SVS	SVS Glos, Officer 4	7
GLOUCESTER	04	SVS	SVS Glos, Officer 5	5
GLOUCESTER	04	SVS	SVS Glos, Officer 6	5
GLOUCESTER	04	SVS	SVS Glos, Officer 7	4

GLOUCESTER	04	SVS	SVS Glos, Officer 8	3
GLOUCESTER	04	SVS	SVS Glos, Officer 9	3
GLOUCESTER	04	SVS	SVS Glos, Officer 10	3
GLOUCESTER	04	SVS	SVS Glos, Officer 11	3
GLOUCESTER	04	SVS	SVS Glos, Officer 12	3
GLOUCESTER	04	SVS	SVS Glos, Officer 13	3
GLOUCESTER	04	SVS	SVS Glos, Officer 14	3
GLOUCESTER	04	SVS	SVS Glos, Officer 15	2
GLOUCESTER	04	SVS	SVS Glos, Officer 16	2
GLOUCESTER	04	SVS	SVS Glos, Officer 17	2
GLOUCESTER	04	SVS	SVS Glos, Officer 18	2
GLOUCESTER	04	SVS	SVS Glos, Officer 19	1
GLOUCESTER	04	SVS	SVS Glos, Officer 20	1

- Training

A training session took place at Taunton AHDO on 28 April 2004. An AHO who participated to the training session was interviewed. He thought the training was very useful, interactive and necessary.

A list of the participants, an agenda and the material used for the training was given to the Auditor. Participants from Exeter, Worcester, Gloucester and Truro attended the course on April 28 2004. The course was given by the TB Veterinary Advisor (VA), at Page Street; the SVS TB99 VA and the Data Manager from the VLA.

In addition in Gloucester there has been an intensive in-house training, done mainly by the previous TB99 Lead VO and based essentially on the queries generated. The AHO who was interviewed thought that it had helped him a great deal.

*Comments:*

*One cannot emphasize enough the importance of the training as an on-going way of improving the quality of the data and in particular the using the queries as a training aid.*

- Queries

The last queries had been sent out in May 2004. The Auditor's visit took place in

September. At that time hardly any queries had been answered. This was discussed with the EO. Following the visit he sent an e-mail in which he said that he would look into this. He continued by saying that if queries were sent on a more regular basis they would be more relevant and existing resources could be used to look into them.

#### ***Comments/ recommendations***

***The Auditor reiterates what she had been saying in her earlier audit report and that is that one way to improve the quality of the data in the questionnaire is to have a quick turn-over of queries. Apart from answering the query and therefore cleaning the database, this has an educational effect. It helps to avoid repeating the same mistakes time after time (provided the queries are relevant).***

#### **4.2.1.2 On the farm**

- General Comments

The Auditor accompanied the VO onto the farm. The SVS TB99 lead VA was also present. Overall the interview went well. At the beginning both the VO and the farmer were nervous. This was partly due to the presence of additional persons, but after a while both were more relaxed. The interviewer explained to the farmer why he was asking each question. He then gave ample time to the farmer to answer the questions. He did not prompt any answers and the data recorded on the Questionnaire reflects accurately the data the farmer wanted to have recorded.

- Detail of interview

#### **Question 2.2: Usual herd composition**

The VO and the farmer went through the composition of the herd. The VO had, prior to the visit, calculated the total herd size, according to CTS, to be 125. The actual total was 134. The difference could have been due to new born animals since the CTS total had been obtained.

#### **Question 2.3 and 2.4: Details of premises and details of cattle accommodation**

The VO went through the different items with the farmer. On numerous occasions the farmer offered to go out to take a look at the premises as he felt it would be easier to

answer the questions when actually seeing the premises. The VO decided not to do so.

*Comments:*

*Perhaps it would have been a good idea to follow what the farmer wanted, as he felt more comfortable with it.*

### **Question 2.5 Epidemiological group of cattle**

From this question onwards the VO was more relaxed. Again the farmer offered to go round the premises, saying that one would get a much better answer if one could walk around.

### **Question 2.6 and 2.7 Other species of domestic and farmed animals on the holding and contiguous and other herds**

The VO summarized the question twice to make sure that the farmer understood. The VO went always carefully and thoroughly through all the items within a question such as 2.7 d. (other domestic/farmed species)

### **Question 2.8 Crops**

The farmer felt that this was a very difficult question for “a simple farmer” as he said. It took a long time to calculate the hectares.

### **Question 2.10 Grazing land**

The farmer also felt this was a difficult question to answer. It took a long time to go through it.

### Overall comments

*The Auditor feels that the interview went well and that it was carried out in a professional way. All questions were addressed and the answers provided by the farmer were given to the best of his knowledge. The farmer was very cooperative.*

## **4.2.2 In Worcester**

### **4.2.2.1 In the AHDO**

Those present:

From Worcester AHDO:

Five AHDO staff: The TB99 Lead VO, one EO, and three AOs

From elsewhere:

SVS TB99 VA, VLA Data Manager and the Auditor.

- Processing of TB 99s questionnaires and tracking procedures

The procedures were described to the Auditor and a practical example was shown on the screen. Copies of an example from the database were given to the Auditor.

The EO explained that she and the AO's took care of the procedures when there was a breakdown. As soon as a breakdown is notified the Geographical Information System (GIS) map is provided to the AHO. Once the *Post mortem* (PM) results are known the case goes to the case Vet.

The AOs deal with the breakdowns but all other activities are taken care of by the Lead TB99 VO. The team is involved in different areas every week so that they can acquire knowledge and are able to substitute for anyone in that department.

Within the office the staff regularly discuss issues arising and how to resolve them and this has been found to be helpful by all involved.

The AOs expressed the wish to get more feed-back about the project: They want to know what is happening elsewhere, if others have encountered the same problems they have and how have they been addressing them. They suggested the possibility of a TB99 regular newsletter.

***Comments and recommendations:***

***It is important for the quality of the project and for the motivation of the staff, to give regular feed-back not only about TB99 activities within their own AHDOs but also about the whole TB99 project.***

The group is well organized; because of the turnover in the tasks there is effective contingency planning and motivation.

- Acceptance or refusal of allocation of controls

In Worcester, 36 controls were accepted, 17 refused and 3 were pending at the time of the audit visit. The reasons for refusals were mainly due to not having eligible stock or not wanting to take part in the study.

*Comments:*

*The Lead VO is the only person who contacts the potential control farmers. The figures mentioned above are good.*

- Staff having completed the questionnaire

At the time of the report 12 Officers (11 SVS and 1 ADAS) had completed the Questionnaire. Table 4 shows the number of forms having been completed by each Officer.

**Table 4**                      **Number of forms completed per Officer**

AHDO name	Year	Organisation	Officer	No. Completed
WORCESTER	04	ADAS	ADAS Officer 1	18
WORCESTER	04	SVS	SVS Worcs. Officer 1	10
WORCESTER	04	SVS	SVS Worcs. Officer 2	9
WORCESTER	04	SVS	SVS Worcs. Officer 3	8
WORCESTER	04	SVS	SVS Worcs. Officer 4	8
WORCESTER	04	SVS	SVS Worcs. Officer 5	5
WORCESTER	04	SVS	SVS Worcs. Officer 6	4
WORCESTER	04	SVS	SVS Worcs. Officer 7	3
WORCESTER	04	SVS	SVS Worcs. Officer 8	2
WORCESTER	04	SVS	SVS Worcs. Officer 9	2
WORCESTER	04	SVS	SVS Worcs. Officer 10	1
WORCESTER	04	SVS	SVS Worcs. Officer 11	1

- Training

The Lead VO sits down with all the staff, AAs, AOs and VOs to discuss issues, problems and to train them. These are interactive sessions.

A complete list of the VOs and administrative staff who attended training sessions was handed over to the Auditor.

- Queries/ Audit procedures

Queries are allocated to the case VO. The Lead VO showed his audit procedures, how he is checking the Questionnaire and how queries are passed to him if there is a

problem.

*Comments:*

*The Auditor was impressed by the way the Lead VO assessed the quality of the data on the Questionnaire. Subsequent to the visit, Worcester completed all of the 563 outstanding queries that had been sent in May 2004.*

*General comments and recommendations:*

***The Auditor felt that there was really a team approach in the AHDO. The only recommendation is regarding the training - to give credit to all the work done but also mainly, for the quality of the process, what these training sessions covered and the topics discussed should be documented in writing, and a record of who attended should be kept.***

**4.2.2.1 On the farm**

The visit to the farm went very well. The Lead VO is highly experienced; He was putting the farmer at ease at once. He first went round the premises with the farmer as he always does. He then went carefully and thoroughly through all the questions. The farmer had ample time to answer and was at no time influenced in his answers.

*Comments:*

*The Auditor thought that the approach of initially walking round the farm was a good idea for 2 reasons:*

*First, It gives the Defra representative a good idea about the layout and extent of the premises and secondly it puts both the farmer and the VO at ease with each other.*

*In this instance this was not necessary, as the VO has a great deal of experience and was handling the Questionnaire extremely professionally. As a result the farmer was also relaxed and able to answer straight to the point.*

### **4.3 General comments and recommendations following the previous audit report and the Government Response**

#### **4.3.1 On the questionnaire**

**The Auditor's 2003 report recommended the questionnaire should be modified to be simpler and shorter, that the instructions and the questionnaire should match. Defra had agreed with these points**

A working group was created to redesign the TB99 form. This group was representative of all the interested parties and involved representatives from the SVS (responsible for farm visits), a representative from the VLA (responsible for data management), representatives from the ISG (responsible for data analysis) and representatives from Defra (responsible for project management). A new, more concise and more user-friendly questionnaire has been developed, which all the interested parties seem satisfied with. Prior to its finalization it was tested in Taunton and the Auditor also had a chance to review it at regular intervals. In particular the issue of 'potential missing data' seems to have been addressed with all questions in the new questionnaire requiring an answer. Also, many of the instructions relating to the form are integrated into the form itself, rather than being in a separate document.

#### **4.3.2 On the people "in the field"**

**In the Auditor's 2003 report, it was highlighted that there were too many interviewers and that some of them were insufficiently neutral. Defra had agreed with these points.**

Possibly still too many people are going out to the farms. Nevertheless the VOs who were accompanied by the Auditor did a very professional job. They explained the questions well. They were neutral when asking the questions. They gave ample time for the answers and at no time influenced the answers.

Training had taken place and has helped improve the quality of the data collection.

*Comments:*

*The figures in Table 5 below actually represent a worse situation (for all regions)*

than in 2003, if the average number of forms completed per Officer is considered. The Auditor has been told that for the CCS05 study there will be fewer Officers involved.

**Table 5 The average number of forms completed per Officer in 2004**

Ahdo Name	Year	Total TB99s	Total Officers	Ratio
EXETER	03	188	24	7.83
EXETER	04	44	14	3.14
GLOUCESTER	03	154	34	4.53
GLOUCESTER	04	94	21	4.48
STAFFORD	03	69	15	4.60
TRURO	03	199	22	9.05
TRURO	04	17	8	2.13
WORCESTER	03	121	13	9.31
WORCESTER	04	71	12	5.92

#### **4.3.3 On data management**

Documents have been created to help facilitate the understanding of what has happened over time. The quality control document is being up-dated at regular intervals. It is recommended that any future changes or additions to the QC document be fully documented.

#### **4.3.4 On the whole process**

In the 2003 report the Auditor had highlighted the need for a much more proactive and unified approach, which would benefit the project. To achieve this, a project manager should be appointed. Defra had agreed with this finding and said TB99 would become a formal project with an owner.

It appears to the Auditor that the project still lacks a project manager. A project manager should supervise and co-ordinate the whole project, from the design of the trial stage right up to data analysis. Defra has appointed a person who has been

responsible for project initiation, project finance and who facilitates meetings of the interested parties. He is doing an extremely good job under the remit he has been given. However, had there been time to implement the change the Auditor would have recommended extending the project manager remit to include more day to day responsibility for such aspects as data quality and co-ordination and active monitoring of the project.

For future projects the auditor recommends that the question of project management be fully considered during the planning stages.

#### **4.4 Movements**

Movement data has formed part of TB99 since its first inception. It is data which is complicated and time consuming to collect, with the interviewer having to go through the farmer's movement books, summarizing movements into and out of the herd for up to 4 years previously

Movement data provided the top 2 variables (in terms of significance) in the first (pre FMD data) analysis. However there has been concern over the data quality of movement data. It was thought that one way of validating the TB99 movement data was to compare it with CTS data, which should in theory give the same figures. It was also hoped that questions on movement could be dropped from the new CCS2005 study and movement data obtained from CTS, as this would save considerable time in the new study. It is proposed that 10% of all visits should result in the movement book being copied and sent to the VLA so that movement data can be compared to CTS data.

At present the comparison of CTS and TB99 movement data is ongoing. However there is a basic flaw in the concept of taking a 10% sample of all movement books. If the CTS data proves unreliable then at the end of the project only a small sample of movement data will be available. A better approach would have been to take a 100% sample from the first month (for example) and an early analysis to be completed. If CTS data were not deemed to be reliable enough then there would still be time to put together an alternative approach to collecting movement data.

## **5. Conclusion**

All staff involved from Defra, VLA and the SVS gave their full support and co-operation to the Auditor.

Most recommendations have been addressed. The Auditor is confident after her audits and after checking the ways recommendations have been implemented that the quality of the data collected has improved and that the skills of the interviewers has improved. Had there been sufficient time, the auditor would have liked to have seen the appointment of someone with overall responsibility for the TB99 project.

## 6. Summary of recommendations

### 1) VLA

- History of TB99 and modification made

*The Auditor recommends that a similar document should be created for the new CCS05 study.*

- Logging changes to the database

*The Auditor recommends that any changes made to the database during the lifetime of the new CCS05 study should be logged in a similar manner to the TB99 study.*

- Computer based administrative queries

*The Auditor recommends that the computer-based checks should be expanded for the new CCS2005 study to include more non-control checks.*

- Validation constants

*The Auditor recommends that a list of the validation constants for the new CCS05 study should again form part of the VLA's new CCS2005 QC document.*

- 10% Quality Check

*The Auditor recommends that for the CCS2005 form a method of detecting individual questions that give rise to a high systematic data entry error rate is considered and if practically possible is implemented. This would allow problem questions to be identified at an earlier point in the study.*

- General recommendations

*The TB99 QC document is now version controlled. It is also recommended to include a summary page which documents any changes (including the author of the changes) made at future versions. The VLA QC document is available from the VLA on request.*

## 2) AHDO

- Processing of TB 99 questionnaires and tracking procedures

*The tracking system in place is good and the AO was very familiar with the procedures. It seems that each office has a different system in place to track the TB99 process and it might be worthwhile thinking of a uniform system for all AHDO's especially also in the light of new areas filling in the questionnaire (It is planned to have a uniform TB99 administrative tracking system in place for the CCS2005 study)*

*It is important for the quality of the project and for the motivation of the staff, to give regular feed-back not only about TB99 activities within their own AHDOs but also about the whole TB99 project.*

- Queries

*The Auditor reiterates what she had been saying in her earlier audit report and that is that one way to improve the quality of the data in the questionnaire is to have a quick turn-over of queries. Apart from answering the query and therefore cleaning the database, this has an educational effect. It helps to avoid repeating the same mistakes time after time (provided the queries are relevant).*

- Training

*The Auditor felt that there was really a team approach in the AHDO. The only recommendation is regarding the training - to give credit to all the work done but also mainly, for the quality of the process, what these training sessions covered and the topics discussed should be documented in writing, and a record of who attended should be kept.*

## 3) Project Management

*For future projects the auditor recommends that the question of project management be fully considered during the planning stages.*