

<b>SUBJECT:</b>	Fermilab Assessment Manual	<b>NUMBER:</b>	<b>3902</b>
<b>RESPONSIBILITY:</b>	Quality Assurance Manager	<b>REVISION:</b>	000 B
<b>APPROVED BY:</b>	Head, Office of Quality and Best Practices	<b>EFFECTIVE:</b>	

**FERMILAB INDEPENDENT ASSESSMENT REPORT FORM**

<b>Fermilab Independent Assessment Report</b>
<b>Assessment Number &amp; Title:</b> 10-IA-QA-004 Telecom Assessment <b>Version:</b> 001
<b>Date(s) of Assessment:</b> 3/15/10 - 3/22/10
<b>Performing Organization:</b> OQBP
<b>Assessed Organization(s):</b> Telecom Department (within the Business Services Section)
<p><b>Report content</b></p> <p>This report contains the following sections:</p> <ul style="list-style-type: none"> <li>• Assessment activities &amp; scope</li> <li>• Scope limitations</li> <li>• Telecom activities along with a brief description of routine tasks performed</li> <li>• Description of the implementation &amp; effectiveness of the Telecom activities</li> <li>• Conclusions</li> <li>• Findings, observations, &amp; recommendations</li> </ul> <p><b>Assessment activities &amp; scope:</b></p> <p>Implementation &amp; effectiveness of controls for Telecom administrative and technical activities relative to the requirements of the Integrated Quality Assurance (IQA) and Fermilab Integrated Contractor Assurance (FICAP) program were examined via interview and document review.</p> <p><b>Scope limitations:</b></p> <p>This assessment included those functions performed by the Telecom department staff relating to “wired” Telecom services only. Cellular, radio, and pager services were not considered. Activities performed by external service providers contracted by the Telecom department were also not included within the scope of this assessment.</p> <p><b>Telecom activities reviewed within this assessment can be summarized as:</b></p> <ul style="list-style-type: none"> <li>• Review and prioritize service and installation requests</li> <li>• Perform new installations</li> <li>• Investigate and perform repairs</li> <li>• Document system changes and forward for database entry (See Files 01 &amp; 02)</li> <li>• Maintain system configuration database (NORM) (See File 03)</li> <li>• Maintain electronic data files (ISI) (See File 04)</li> <li>• Transmit/receive data for utilization reporting</li> <li>• Prepare chargeback information and submit to Accounting (See File 05)</li> <li>• Administer conference registrations</li> <li>• Coordinate external service requests</li> <li>• Provide voicemail setups and installment</li> </ul>

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**Description of implementation & effectiveness of practices assessed:**

Training:

Telecom was found to be compliant with applicable training & qualification requirements. Job descriptions for the organization's personnel (**See Files 06-08**) were reviewed and found to specify appropriate training and qualification. All but one of the five persons in Telecom has at least 10 years experience in the job. The two phone service technicians were hired based on their demonstrated abilities as AT&T subcontractor employees. The one newer worker is being mentored in office responsibilities by the Telecom manager and her assistant. Besides one-on-one instruction, this worker is provided with well-written detailed procedures (**See Files 11 & 12**) to assist in her orientation. Workers described instances where formal training was provided as appropriate (mostly office computer applications).

ITNAs were reviewed and found to be current. Completed coursework reflected in TRAIN is a good match to work requirements. The Telecom Manager functions as the service coordinator for work done by AT&T. In order to increase the pool of AT&T workers that are qualified to work at Fermilab, the Telecom manager travelled to an offsite AT&T facility to provide subcontractor orientation to all the technicians that are dispatched from this location. This action is recognized as a commendable management practice. Though apparently proficient in the role as service coordinator, the Telecom manager had not completed optional course FN000319 Service Coordinator Orientation (**See File 09**). This is the subject of an observation for this assessment.

Quality Improvement:

Informal quality improvement activities were observed within the Telecom department. Because of the brief, discrete nature of many of the technical tasks within Telecom, unresolved problems are often readily apparent as the tasks are completed. The extensive experience of most of the Telecom staff enables them to minimize errors and all are aware of the need for accuracy in documenting configuration data.

Management was aware of the ORPs reporting process and though there had been no ORP's reportable incidents, a CAIRS report (**See File 10**) from 2008 demonstrated that this reporting procedure was followed. Because of the small size of the group and the nature of the tasks performed, corrective actions are remedied informally as identified. Routine, ongoing reviews of repair logs serve to identify patterns in failures which may indicate the need for more significant maintenance.

Documents and Records:

Requirements for Document and Records controls are not fully met within the wired Telecom functions. Processes for which documented procedures exist are selected appropriately based on an informal graded approach and are suitably written for the complexity of tasks and the skills of those performing them. 21 departmental procedures were submitted and reviewed. None of the procedures reviewed contain revision numbers, revision dates, revision histories, or any indication of formal review and approval (**See Files 11-12**). Procedures do contain an automated date field, reflecting the current date. Despite the use of both soft- and hardcopy versions of these procedures, there is not a formal control process to ensure that obsolete versions are not inadvertently used in the course of operations.

Telecom records file plans (for both hard- and softcopy records) were presented and are included as **File 13**. Additionally, Records Storage and Disposition (RSD) forms are in use for filed records, as required by the Fermilab Records Management Program.

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Work Processes:

Work process requirements are met for the functions being executed within the Wired Telecommunications area. All personnel are aware of their responsibility for the quality of their work. Detailed, documented processes and procedures exist and are being used for the administrative voice mail and telecommunications tasks being performed within the organization. The level of detail contained in these process documents allow efficient process execution by experienced personnel and permit new personnel to become effective quickly. See page four of this report for a complete list of process documents examined.

Telecommunications Service Request Forms (**File 14**) and the Telephone Repair log (**File 15**) are inputs to the technicians' installation and repair processes. There is some redundant work associated with these processes, as the records of completion are recorded in multiple places such as on the service request form, in the blue and green books, and in the ISI and NORM databases. Although the technicians are very experienced, the processes they use for troubleshooting and cable pair/circuit location are not documented. The graded approach can be used to determine if documented processes are needed in this area.

Worker Feedback:

Among the Telecom personnel interviewed, formal knowledge of the specific worker feedback provisions of the Fermilab Whistle Blower Protection Policy and the Fermilab Internal Complaint Procedures varied, though all were aware of the basic right to, and responsibility for escalation of issues to higher management levels. None of the interviewees indicated they had exercised these options.

**Conclusions:**

The staff of the Telecommunications Department has extensive experience in their individual areas of responsibility and in working together cooperatively. In the specific area of "wired" telecom, the nature of operations has not changed significantly in recent years. Both the technical (installations, repair, and maintenance) and administrative (system configuration, support, and financial) operate smoothly because of the knowledge and experience of the individual staff members and their effective interaction with each other.

Appropriate structure for the group is provided by procedures that are clearly written and appropriate to the tasks performed. These procedures are used both online and as hardcopies although adequate document controls are not in place to ensure the validity of documents used.

**Findings:**

Document controls are lacking for Telecom Department procedures as required by the IQA, Section 4.3 – "Documents" (and by reference to Director's Policy 13). See **Files 11 & 12** as examples. Such controls should include:

- Revision numbers, revision dates, and change history
- Requirements for document review and approval
- Procedure for defining and updating controlled hardcopies to prevent inadvertent use of obsolete versions

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**Observations:**

1. There is significant redundancy in data entry and flow for the installation and repair functions, resulting in duplication of efforts and increased opportunities for errors. Some data fields may be entered as many as five times (Technician Blue Book, Green Book, Service request form update, ISI, and NORM database).
2. Some system configuration data resides solely in the Technician Blue Book and Green Book, leading to concerns over information security.
3. There is an optional training course for Service Coordinators available (see FESHM 7020 Subcontractor Safety – Other than Construction), but the Communications Services Manager who serves as the department’s Service Coordinator has not received this training.
4. There have not been recent ES&H assessments conducted within the Telecom Department.

**Recommendations** (referenced to observations above):

1. Management should review the flow of information to see if there might be opportunities for consolidating data entry and use. For example, the use of a common database to replace the multiple information sources could eliminate duplicate entries while allowing for custom extraction and use of data..
2. Management might also want to consider the periodic or incremental backing up of the technician log books.
3. The Communications Services Manager should consider if completion of the Service Coordinator course would be appropriate.
4. Section management should review assessment plans and apply a graded approach to determine if the lack of ES&H assessments in this area is appropriate based on risk.

**Commendable Practice:**

Training and qualifying vendors collectively rather than on an ad hoc, as-needed basis improves training efficiency and expands the number of subcontractors readily available to work at Fermilab. Management across Fermilab should consider adopting this practice where applicable.

**Titles and Names of Person Interviewed:**

Nanette Larson, BSS Communications Services Manager  
Richard Stover, Technician  
John Bernhard, Technician  
Anita Menz-Cwiklik, Administrator  
Alison Fitzgerald, Assistant

**Documents Reviewed:**

Departmental Procedures (by e-filename):

1-800-Conference Call Reservation Procedures  
1-800-Conference Invoice Procedures  
Accunet Invoice & Cost Transfer Procedure  
Adding Call Waiting to an Extension  
Adding Voice Mail to an ISDN  
Adobe PDF Notes

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Centigram Maintenance  
 Corporate Calling Card Procedures  
 Creating a Voice Mail Tree  
 Creating a Voice Mailbox  
 Deleting a CentrexMate Voice Mailbox  
 ISI, NORM, & Phone Inventory Procedures  
 Miscellaneous Cost Transfer Procedure  
 Miscellaneous Invoice Procedures  
 Miscellaneous Verifications  
 Online ES&H Test Administration by Proctorx  
 Removing Call Waiting From an Extension  
 Repair Telephone Numbers  
 Reset Voice Mail Passcode  
 SAM's & TAR's - Replacing Batteries  
 Voice Mail Tree Pseudo Mail Boxes

(See also "Attachments" section below")

**Standards, Regulations, and Other Program Requirements Applied:**

The specific criteria applied to this assessment were:

- Fermilab Integrated Quality Assurance (IQA), Document 1001
  - Chapter 2 - Personnel Training & Qualification
  - Chapter 3 - Quality Improvement
  - Chapter 4 - Documents & Records
  - Chapter 5 - Work Processes
- Fermilab integrated Contractor Assurance (FICAP), Document 3901
  - Chapter 8 - Worker Feedback

**Describe or List Any Other Assessment Methods Used:** None

Corrective Action Plans Issued:

BS-20100326-01 - Lack of document controls for wired Telecommunication Department procedures

**Assessors' Names (Asterisk indicates Lead):**

John Martzel  
 Tim Miller  
 Kurt Mohr \*

**Submitted by:** Kurt Mohr

**Approved by:**

\_\_\_\_\_

Name & Title \_\_\_\_\_  
Date

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<b>Distribution:</b>	
<p>Frank Cesarano David Carlson Jeff Cotton Bob Grant</p>	<p>Jed Heyes Jeff Irvin Nanette Larson Mari Mendez</p>
<b>Attachments:</b>	
<p>File 01 – Technician Blue Book File 02 - Technician Green Book File 03 - NORM Database File 04 - ISI Excel Sheet File 05 - Invoice Authorization Excel Sheet File 06 - Admin Support Asst II Job Description File 07 - Admin Support Asst IV Job Description File 08 – Sr. Tech Job Description File 09 - FN000319 Service Coordinator Orientation File 10 - Telecom CAIRS form File 11 - Adding Call Waiting to an Extension File 12 - Corporate Calling Card Procedures File 13 - Telecom File Plan File 14 - Telecom Service Request File 15 - Telephone Repair Log</p>	

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