

Association of Communication Engineers/USDA Rural Development Seminar

RUS BULLETIN REVISIONS

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May 07, 2008



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RUS BULLETINS

- Specifications for Outside Plant Housings and Serving Area Interface System (PE-91)
- Standards for Splicing Copper and Fiber Optic Cable (PC-2)
- Acceptance Tests and Measurements of Telecommunications Plant (PC-4)
- Bulletin 345-45, Field Trials of Telephone/Broadband Solutions, Materials and Equipment

RUS BULLETIN – PE 91 Revision

- Follow-up to PE-90 Fiber Cable Specification to address Temp. Induced Cable Loss (TICL)
- 1st Revision Released Feb. 12, 2008
- 2nd Revision Released May 2, 2008

RUS BULLETIN – PE 91 Revision

- 1st revision matched all the copper housing requirements with requirements for fiber
- Received comments from fiber cable and fiber housing manufacturers, and ACE
- Sheath retention and Central member protrusion tests address “pistonning” the main cause of TICL

RUS BULLETIN – PE 91 Revision

- 2nd revision increases the jacket clamping/cable pullout force from 100 lbf to 175 lbf at both 23C and -40C
- Received preliminary test data with 3/8” jacket slippage and about 1 mm for CSM
- Studying the “FLOATING” FTTH pedestal deployment exclusively in Minnesota since 2002 (comparable to copper ped costs).

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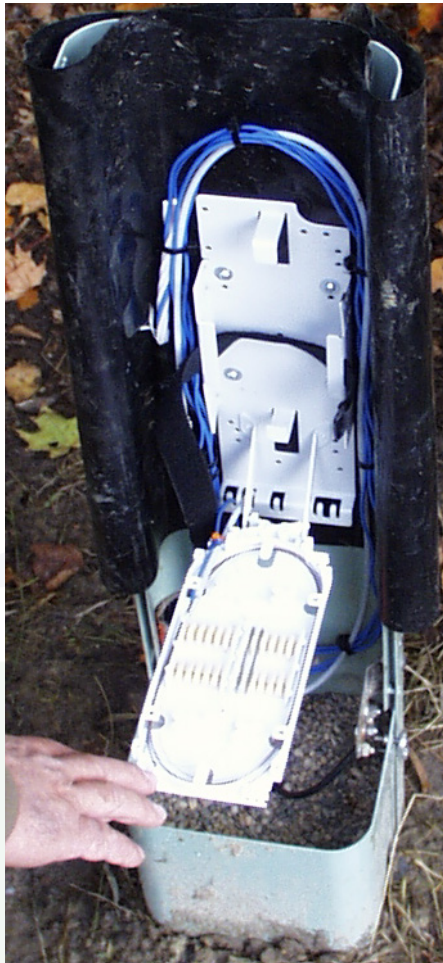
RUS BULLETIN – “THE FLOATING DISTRIBUTION”



Survived 5 winters, no degradation, coldest month is January

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RUS BULLETIN – “THE FLOATING DISTRIBUTION”



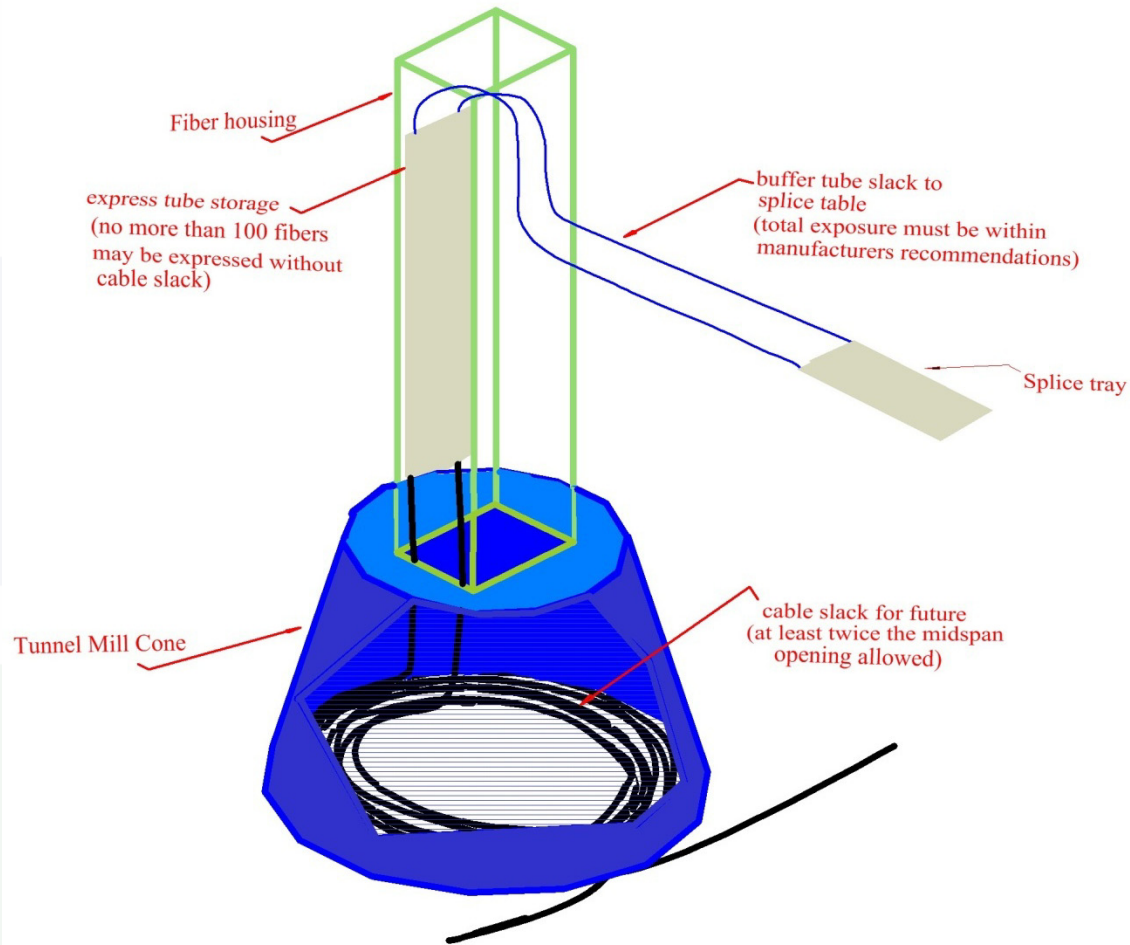
- Uses 2.5 buffer tube completely dry cable.
- All fusion spliced
- 12 drop fibers per tray or 24 fibers in and out direct spliced.
- Maximum of 7 trays stacked
- Typically 18 feet of fiber slack per pedestal
- Feeder on the left and drops on the right.
- Frost heave mainly with blue clay soils as much as 5” to 6” of upward pedestal movement (pure sand, sand loam also present.)
- All cables are typically opened 8” to 10” above the last industrial cable tie.



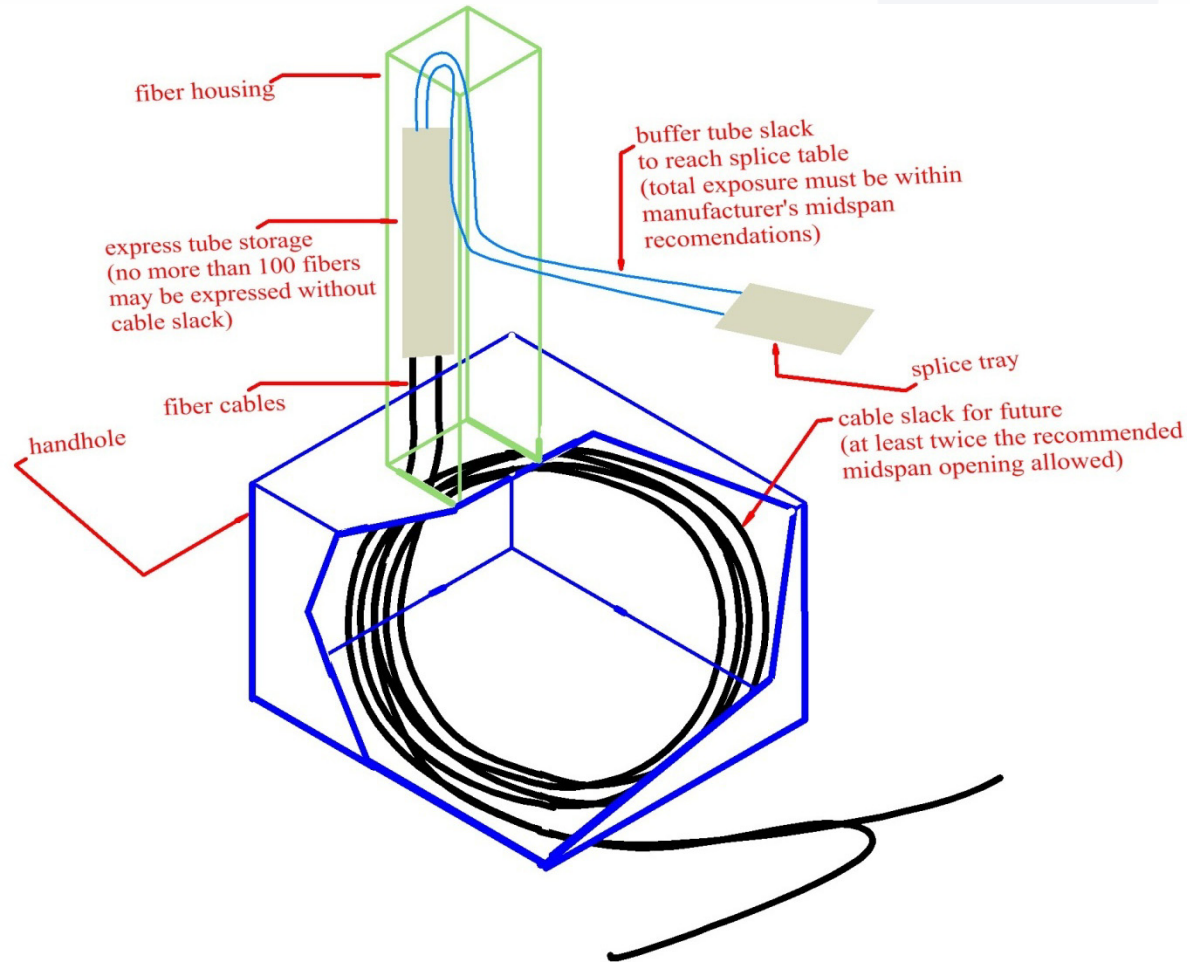
RUS BULLETINS PC-2

- Will include FTTH splicing
 - Hub & Pedestal Distribution
 - Cable vs. Fiber Slack Recommendations
 - Connectorization (OptiTap use)
- May limit the number of expressed fibers to no more than 100 strands without cable slack storage.

RUS BULLETINS PC-2



RUS BULLETINS PC-2



RUS BULLETINS PC-4

- PC-4 was originally specified for inter office fiber fed connections and remotes, cell sites, etc... however, it was not specified with FTTH in mind.
- PC-4 allows the borrower to specify the loss other than RUS in their contracts. It may be specified that only the optical loss measurement (end-to-end) be obtained for FTTH acceptance.

RUS BULLETIN 345-45, Field Trials

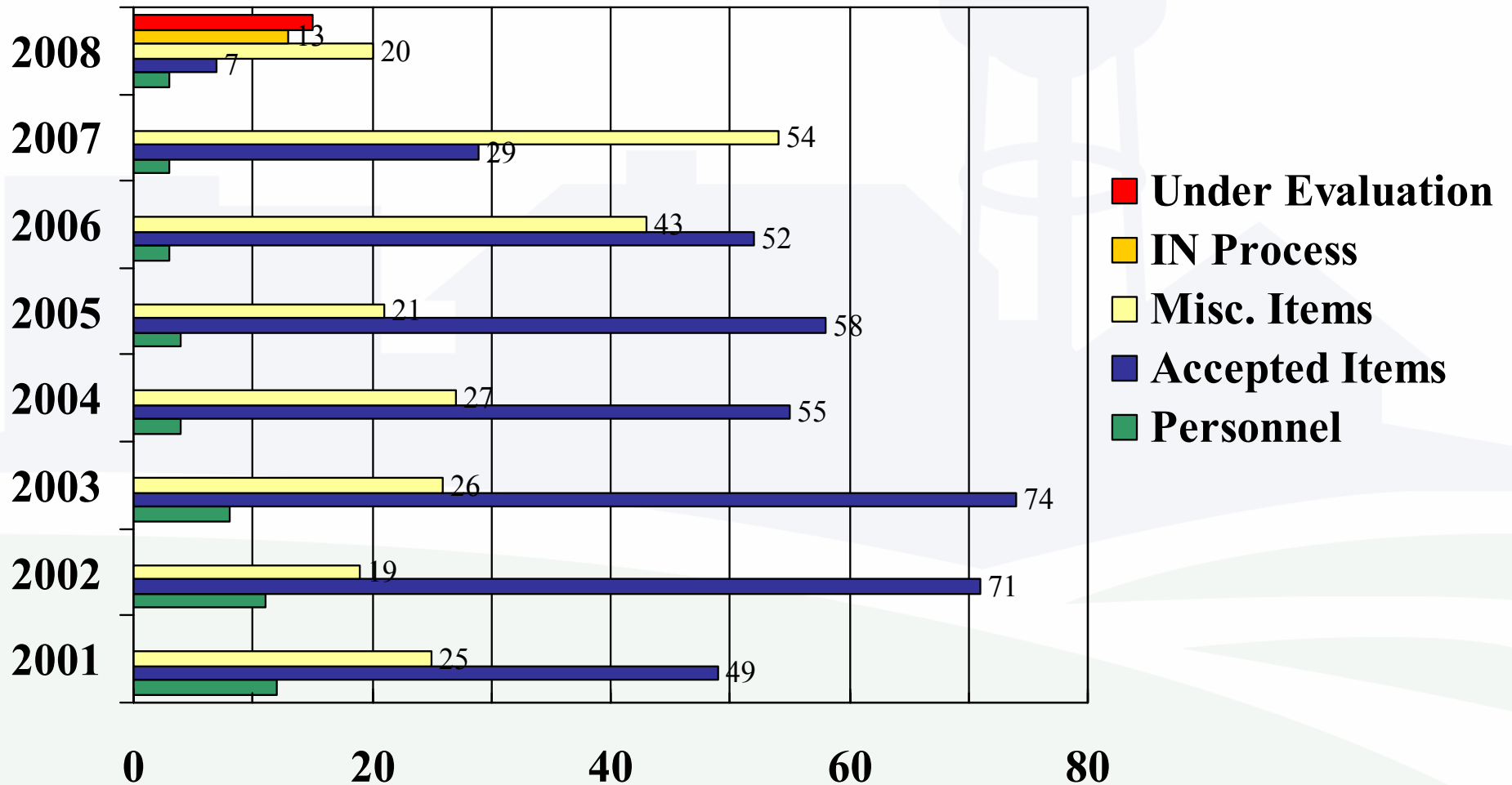
- A rescinded bulletin being re-instated and draft released February 2008.
- Field Trials are not necessary if solutions have conclusive test data to share with RUS for acceptance
- Conclusive data is defined and may come in several forms

RUS BULLETIN 345-45, Field Trials

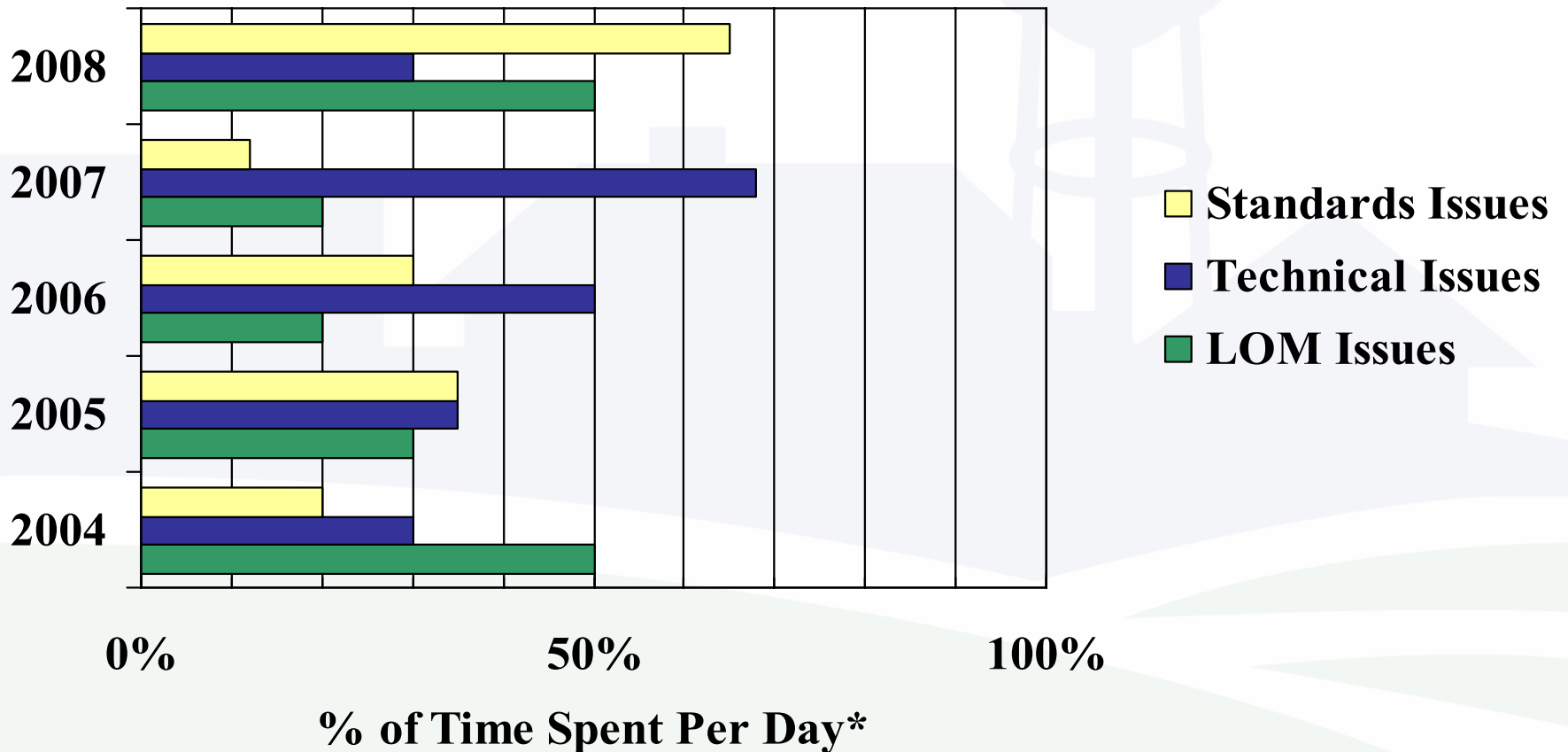
- Conclusive data is defined as:
 - Detailed test plans
 - Live test data that resulted in revenue generating service
 - Acceptance test results supported by comprehensive field trial reports
 - Comprehensive laboratory test data followed with an engineering analysis that is certified by the manufacturer.

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THE RUS LISTING PROGRESS REPORT



THE RUS TECHNICAL SUPPORT PROGRESS



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DID YOU SAY MORE?... WELL.....

RUS BULLITIN REVISIONS

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THE RUS TECHNICAL SUPPORT BRANCH



**Electronic
List of Materials
Process**



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May 7, 2008

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NEW MANUFACTURER LISTING

ASSUMPTIONS:

1. **Situation – manufacturer has a pending contract within a month or less.**
 - A. **Proven Rural Broadband/Telecom Applicability**
 - B. **Meets Buy American Domestically or Non-Domestically**
 - C. **Testimonials are complete**
 - D. **Test Data is sufficient**
 - E. **Documents are complete**
 - F. **Email concurrence process takes 1-2 weeks**
 - a) **Mature product – Listing within 1-2 weeks**
 - b) **Immature product – Listing through Committee A within 3-4 weeks.**
2. **Situation – manufacturer was referred to the Agency.**
 - A. **Proven Rural Broadband/Telecom Applicability**
 - B. **Meets Buy American Domestically or Non-Domestically**
 - C. **Testimonials are complete**
 - D. **Test Data is sufficient**
 - E. **Documents are complete**
 - F. **Email concurrence process takes 1-2 months**
 - a) **Mature product – Listing within 1-2 months**
 - b) **Immature product – Listing through Committee A within 5-9 weeks.**



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Note: times are based on the average time manufacturers took to respond to our listing requirements between 2006 – 2007. On average TSB can handle 4 to 6 manufacturers simultaneously/week and overlap.

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EXISTING MANUFACTURER LISTING

ASSUMPTIONS:

3. **Situation – Existing manufacturer adds products to existing acceptance.**
 - A. **Proven Rural Broadband/Telecom Applicability**
 - B. **Meets Buy American Domestically or Non-Domestically**
 - C. **Recertification to the Agency is complete.**
 - D. **Email concurrence process takes 1-5 days**
 - a) **Mature product – Listing within 1-5 days**

4. **Situation – Existing manufacturer adds new products.**
 - A. **Proven Rural Broadband/Telecom Applicability**
 - B. **Meets Buy American Domestically or Non-Domestically**
 - C. **Testimonials are complete**
 - D. **Test Data is sufficient**
 - E. **Documents are complete**
 - F. **Email concurrence process takes 1-2 weeks**
 - a) **Mature product – Listing within 1-2 weeks**
 - b) **Immature product – Listing through Committee A within 2-3 weeks.**

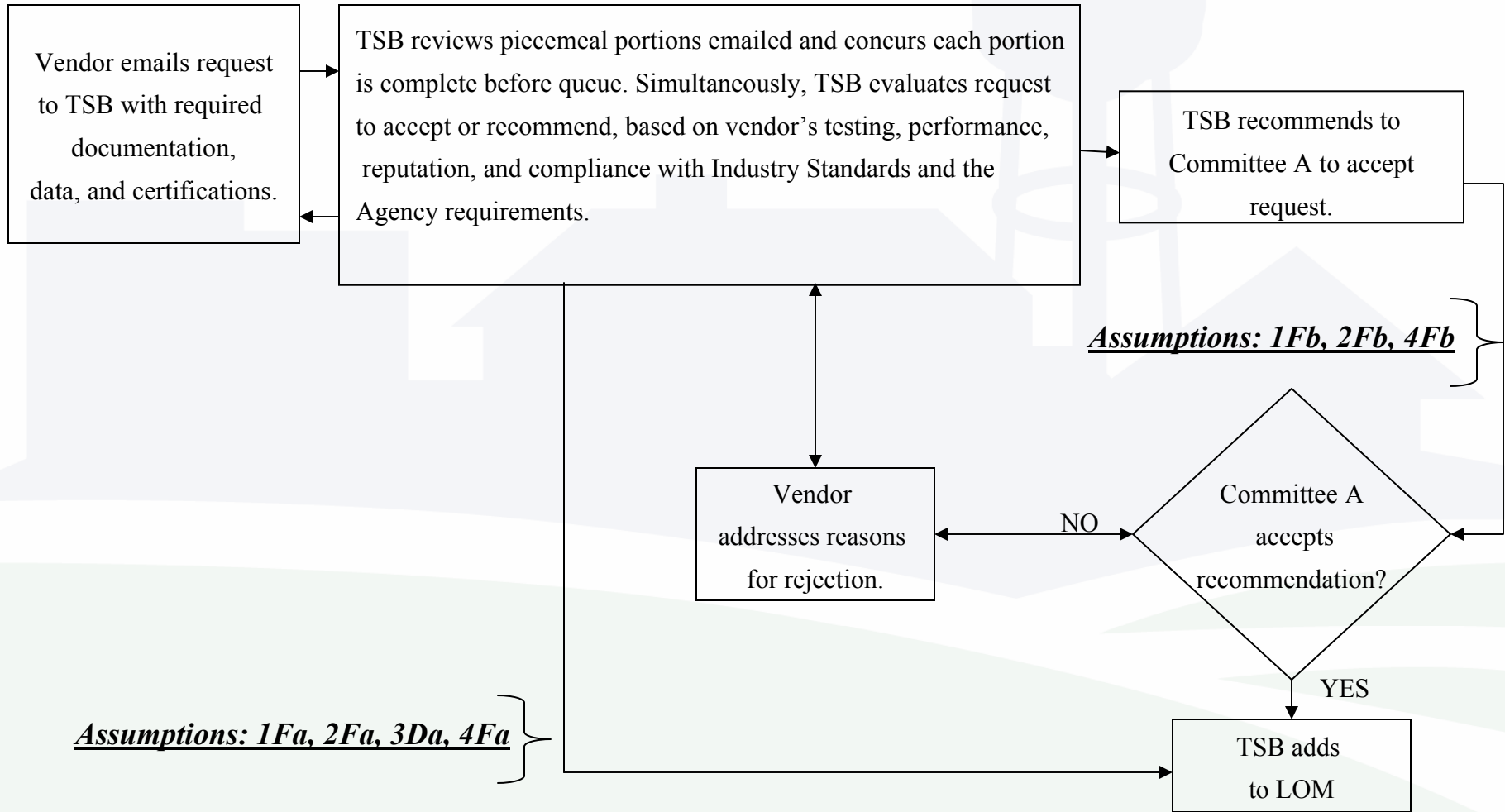


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Electronic LOM Process Flowchart

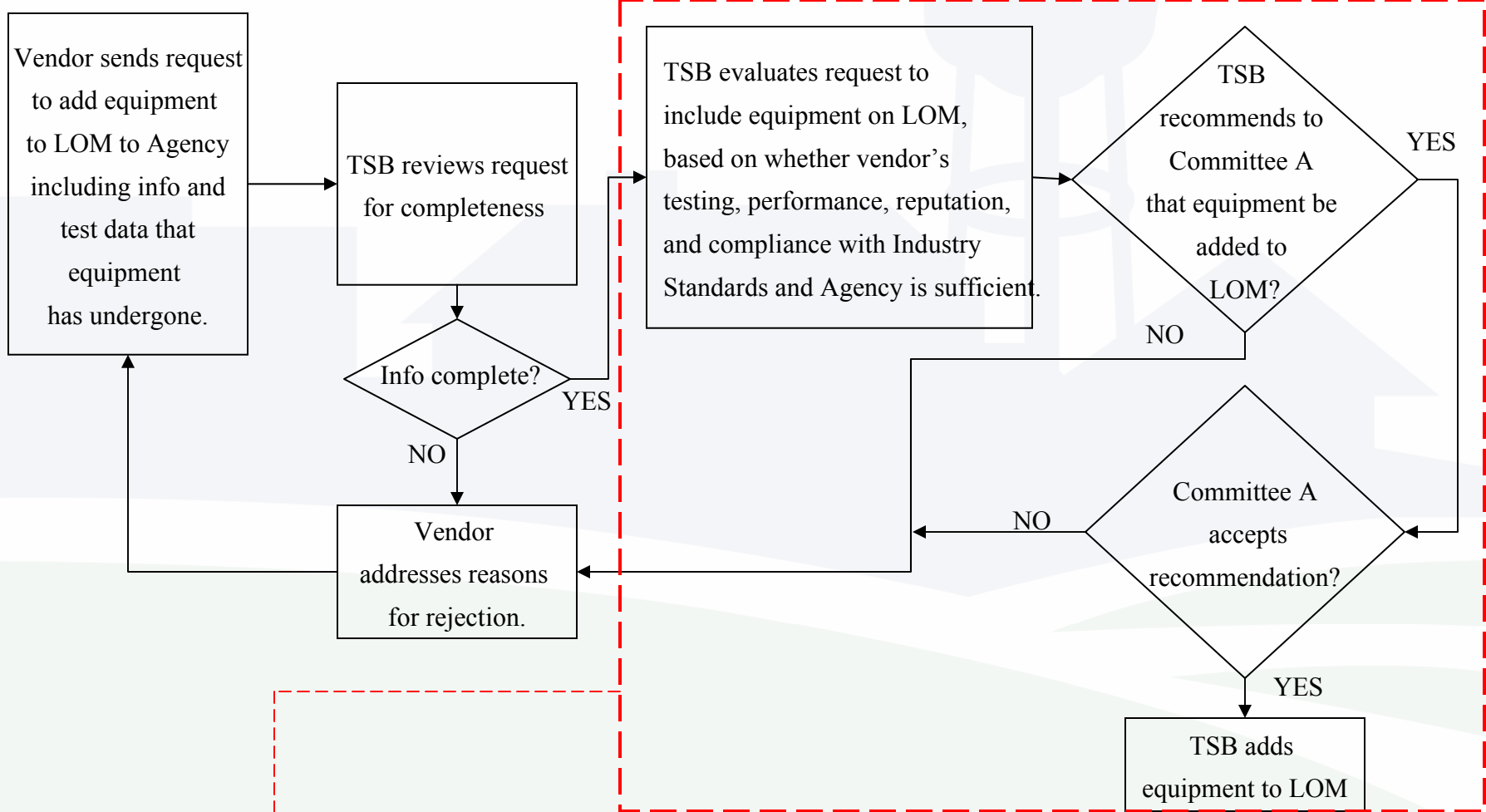


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(A new process accepted as of 2007 by Committee A)

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The Old LOM Process Flowchart



On average, this is a 1-2 month process provided that Committee A was able to schedule a meeting within this time frame and applications are complete.



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THE RUS TECHNICAL SUPPORT BRANCH

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