

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

Mail Stop 3720

January 24, 2007

Via U.S. Mail and Fax (011 44 1293 767994)
Mr. Eric Hutchinson
Chief Financial Officer
Spirent Communications PLC
Spirent House
Crawley Business Quarter
Fleming Way, Crawley
West Sussex RH10 9QL
United Kingdom

RE: Spirent Communications PLC

Form 20-F for the fiscal year ended December 31, 2005

Filed June 29, 2006 File No. 1-15206

Dear Mr. Hutchinson:

We have reviewed your supplemental response letter dated January 10, 2006 as well as the above referenced filings and have the following comment. As noted in our comment letter dated December 12, 2006, we have limited our review to your financial statements and related disclosures and do not intend to expand our review to other portions of your documents.

Form 20-F for the fiscal year ended December 31, 2005

1. Please refer to prior comment 14. Given the fact that paragraph 8 of IFRS 5 states that "actions required to complete the plan should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn," tell us how you considered the requirement for shareholder approval in determining that the sale was "highly probable." Also, tell us how you evaluated the phrase in paragraph 8 that "the appropriate level of management must be committed to a plan" and how you determined what the appropriate level of management was, in light of the requirement for shareholder approval. Finally, tell us why shareholder approval is considered a term that is "usual and customary" as contemplated by paragraph 7 of IFRS 5.

Mr. Eric Hutchinson Spirent Communications PLC Page 2

Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detail letters greatly facilitate our review. Please file your response letter via EDGAR. You may contact Bob Carroll, Staff Accountant, at (202) 551-3362 or Kyle Moffatt, Branch Chief Accountant, at (202) 551-3836 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3810 if you have any other questions.

Sincerely,

/s/ Kyle Moffatt for

Larry Spirgel
Assistant Director