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April 28, 2011

BY EDGAR AND BY FAX (703) 813-6986

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attention: Larry Spigel
Robert S. Littlepage, Jr.
Kenya Wright Gumbs

**Re: American Tower Corporation
Form 10-K for Fiscal Year Ended December 31, 2010
Filed February 28, 2011
File No.: 1-14195**

Ladies and Gentlemen:

On behalf of American Tower Corporation ("*American Tower*," the "*Company*," "*we*," "*us*" and, with correlative meaning, "*our*"), the following responses are provided to the comments submitted to American Tower by the staff of the Securities and Exchange Commission (the "*Staff*") in a letter dated April 14, 2011 (the "*Letter*") relating to American Tower's Annual Report on Form 10-K for the year ended December 31, 2010 (the "*Form 10-K*"). We have restated below in italics each comment from the Letter in the order in which it appeared and have supplied our response to each comment immediately thereafter.

Form 10-K for Fiscal Year Ended December 31, 2010

General

- Please explain to us the consideration you have given to Alcatel-Lucent's lightRadio and/or similar technologies and the potential impact they may have on your business. Also, tell us if you have considered whether this technology will affect your impairment analysis with regard to your towers and related assets in the near term, and if so, explain how.*

RESPONSE:

LightRadio is a new multi-frequency, multi-standard (2G, 3G, LTE) radio product that Alcatel/Lucent is marketing to wireless carriers. We understand that the product is

designed to, among other things, improve network coverage and capacity in dense urban areas, while reducing network operating costs. Limited information on the technology specifications has been provided by Alcatel/Lucent, but our research and discussions with industry experts indicate that lightRadio is still in the development stage, and it is not clear how wireless carriers will utilize and deploy the product. Based on our current understanding of the technology, we believe it is a niche solution that could be used to help alleviate the burden of rising data traffic on carriers' networks in dense urban markets, or other similarly constrained areas. We typically service these markets through our rooftop deployments or distributed antenna systems ("DAS") networks, rather than through our traditional tower sites, due primarily to zoning and other restrictions. We view lightRadio as a potential complement to our current DAS networks, not a substitute for our traditional tower sites, and expect that carriers may use it to augment their networks while continuing to utilize the more traditional means of network development. As set forth in our Form 10-K under the caption "Risk Factors—New technologies or changes in a tenant's business model could make our tower leasing business less desirable and result in decreasing revenues," we continue to monitor the potential impact of new technologies such as lightRadio on our business, and disclose any potential risks associated with the development and implementation of those new technologies that we believe may materially impact our results of operations and financial condition.

Our existing revenues result from long-term customer leases with initial non-cancellable terms generally ranging from five to ten years with multiple five-year renewal options. Given that the adoption of new technology by wireless carriers is unpredictable, and even if adopted, may require significant time to implement, our non-cancellable lease revenue historically has not been materially impacted by technology changes. As referenced in our Form 10-K under the caption "Critical Accounting Policies," we review our tower and related tower assets annually for impairment, considering such factors as tower location, tower location demographics, timing of additions of new tenants, lease rates and estimated length of tenancy. To the extent marketplace changes such as lightRadio influence these variables, we would factor them into our assumptions and update our analysis accordingly. However, as lightRadio is a relatively new technology that is not yet commercially available and the adoption and utilization of this technology by the wireless carriers has not been determined, we do not believe that the development of this product will affect the factors used in our impairment analysis in the near term, and for the year ended December 31, 2010, we did not specifically adjust these variables for lightRadio.

Financial Statements

11. Income Taxes

2. *We note you disclose that your deferred tax assets as of December 31, 2010 do not include \$122.1 million of excess tax benefits from the exercises of employee stock options that are a component of net operating losses. Please explain this disclosure to us, including the nature of this asset, your basis for not recognizing the tax benefit as of year-end, and the accounting literature that supports your policy.*

RESPONSE:

An excess tax benefit is created in those instances in which the tax deduction recognized upon the exercise of employee stock options exceeds the cumulative amount of compensation recognized in accordance with ASC 718 Compensation – Stock Compensation (ASC 718). Pursuant to ASC 718-740-25-10, the recognition of any excess benefit associated with the exercise of employee stock options is deferred until the company is able to use the benefit to reduce income taxes payable. As of December 31, 2010, we had estimated net operating losses ("NOLs") of approximately \$1.2 billion, consisting of \$0.9 billion of NOLs and \$0.3 billion of losses related to employee stock

options. Because the recognition of the NOLs attributable to these excess tax benefits is dependent on their utilization to effectively reduce income taxes payable, they were not reflected as a component of deferred tax assets. We will recognize the benefit in the financial statements at the time that these specific NOLs are utilized in accordance with ASC 718-740-25-10.

As disclosed in our Form 10-K, our deferred tax assets excluded approximately \$122.1 million of excess tax benefits from the exercise of employee stock options. We included this disclosure in order to provide investors with additional information regarding the excess tax benefits that will potentially be realized in future periods and serve to reduce income taxes payable at that time.

3. *In addition, we note you state that total stockholders' equity will be increased if and when any such excess tax benefits are ultimately realized. With a view towards expanded footnote and MD&A disclosure, explain to us what must occur in order for the benefits to be realized. Also, clarify in future filings whether this benefit will impact your results of operations and disclose the anticipated timing of realization, if known.*

RESPONSE:

In order for us to recognize the excess tax benefits, NOLs attributable to such excess tax benefits must be actually utilized (as discussed above, reducing income taxes payable). As noted, we have a substantial amount of NOLs that must be utilized prior to our being able to recognize the benefits associated with the excess tax benefits resulting from the exercise of employee stock options. We do not currently know when these benefits will be recognized. Upon the utilization of these benefits, we will record them as a credit to additional paid-in capital.

In response to the Staff's comment, we will expand our disclosure in future filings substantially as shown below. The following disclosure is based on the disclosure included in our Form 10-K, and the significant changes have been marked in bold.

*The Company's deferred tax assets as of December 31, 2010 and 2009 in the table above do not include \$122.1 million and \$113.9 million, respectively, of excess tax benefits from the exercises of employee stock options that are a component of net operating losses, **as these benefits can only be recognized when the related tax deduction reduces income taxes payable. If these benefits had been fully recognized in 2010, total stockholders' equity as of December 31, 2010 would have increased by \$122.1 million.***

In addition, to the extent the impact of the recognition of excess tax benefits is material in any future period, we would expand our MD&A discussion to include disclosure of that impact.

* * * *

In response to the Staff's request, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filings;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filings; and

- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you require additional information, please telephone the undersigned at (617) 375-7500.

Very truly yours,

/s/ Thomas A. Bartlett

Thomas A. Bartlett

Executive Vice President and Chief Financial Officer

cc: Edmund DiSanto, Esq.
Michael John McCormack, Esq.
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