



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

January 22, 2010

By U.S. Mail

Mr. Klaus Heinemann
Chief Executive Officer
AerCap Holdings N.V.
AerCap House
Stationsplein 965
1117 CE Schiphol Airport
Amsterdam, The Netherlands

Mr. John McMahon
Chairman, Chief Executive Officer, and President
Genesis Lease Limited
4450 Atlantic Avenue
Westpark
Shannon, County Clare, Ireland

**Re: AerCap Holdings N.V.
Amendment No. 3 to Registration Statement on Form F-4
Filed January 4, 2010
File No. 333-162365
Annual Report on Form 20-F for the fiscal year ended December 31, 2008
Filed April 1, 2009
File No. 1-33159**

Dear Messrs. Heinemann and McMahon:

We have reviewed your filings and have the comments below.

Amendment No. 3 to Registration Statement on Form F-4

General

1. We note that Exhibit 5.1 is dated as of November 9, 2009, Exhibit 8.1 is dated as of December 11, 2009, and Exhibit 8.2 is dated as of December 11, 2009. Please have these exhibits and their associated consents updated as of a reasonably proximate date and refile them as exhibits to the registration statement.

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Unaudited Pro Forma Combined Financial Statements

2. We note your response to comment six in our letter dated December 23, 2009. Please revise your disclosures related to adjustment (g) on page 33 to address the following:
- Please provide a breakdown of this adjustment in a manner similar to the pro forma maintenance adjustment table provided to us on a supplemental basis on January 18, 2010;
 - For the accounting harmonization component of this adjustment, please clarify, if true, that the \$73.2 million adjustment for the recognition of accrued maintenance liability based on AerCap's accounting policy is limited by the amount of supplemental rents collected by Genesis under current leases in excess of amounts paid back to lessees for maintenance events; and
 - For the component described as purchase accounting adjustment in relation to lessor contributions, please disclose, if true, that the adjustment amount represents the estimated fair value of future lessor maintenance contributions based on prior usage. Refer to paragraph 7 of FSP SFAS 141(R)-1.

Form 20-F For The Year Ended December 31, 2008

Financial Statements

Consolidated Statements of Cash Flows, page F-5

3. We note your response to comment 10 in our letter dated December 23, 2009. Based on the activity you identified related to your accrued maintenance liability as well as the additional information you provided us in our conference call on January 19, 2010, we note that supplemental rents you have collected related to aircraft that you subsequently sell (or supplemental rents that have been collected by the lessor of aircraft you subsequently purchase) are netted against the purchase price of such aircraft. Notwithstanding the fact that you remit a net amount to the seller of the aircraft you acquire (or receive a net amount from the purchaser of your aircraft), you have reflected the obligation related to the supplemental rents you assumed from the seller and the obligation you transferred to the purchaser as a cash flow on your statement of cash flow. This appears to result in reflecting the noncash activity related to these supplemental rents in your cash flows from operating and investing activities. As discussed in paragraph 32 of SFAS 95, only the cash portion of transactions shall be reported in the

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statement of cash flows. In this regard, please revise your statements of cash flow in an amendment to your Form 20-F to properly only reflect the cash portion of transactions with buyers and sellers of aircraft. If you determine that the revisions would not be material, please provide us with your SAB 99 materiality analysis.

4. We note your response to comments 10 and 11 in our letter dated December 23, 2009. We note that you generally have an obligation to return supplemental rents paid to you by the lessees upon the receipt of evidence of qualifying maintenance work from the lessees. Your forecast analysis indicates that in the future you expect to return the majority of the supplemental rents collected during the lease term back to the lessee. Based on these facts as well as the fact that the Company has the use of the cash and has thereby has theoretically reduced its need for debt or other borrowed funds, it appears to us that these maintenance payments are more akin to the financing activities identified in paragraph 18 of SFAS 95 rather than operating activities. Furthermore, paragraph 24 of SFAS 95 states that when cash flows have aspects of more than one class of cash flow, the appropriate classification shall depend on the activity that is likely to be the predominant source of the cash flows for the item. Since based on your forecasts, we assume that most of the maintenance payments will be remitted to the lessees, it would appear appropriate to reflect changes in the accrued maintenance liability in financing activities in your Form 20-F for the year ended December 31, 2009. In doing so, you should show the amount of supplemental rents received from lessees and correspondingly supplemental rents remitted back to the lessees in separate line items. For consistency and comparability purposes, please also revise your presentation of these changes for all periods presented. In a similar manner, if you also determine that the majority of lessee deposits are returned back to lessees, please also revise your statements of cash flows to reflect changes related to lessee deposits in financing activities.

Closing

As appropriate, please amend the registration statement in response to these comments. You may wish to provide us marked courtesy copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after review of your amendment and responses to our comments.

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You may direct questions about comments on the financial statements and related matters to Nudrat S. Salik, Staff Accountant, at (202) 551-3692 or Jeanne K. Baker, Assistant Chief Accountant, at (202) 551-3691. You may direct questions on other comments and disclosure issues to Edward M. Kelly, Senior Counsel, at (202) 551-3728 or Dietrich A. King, Staff Attorney, at (202) 551-3338.

Very truly yours,

Pamela A. Long
Assistant Director

cc: CT Corporation System
Agent for Service, AerCap Holdings N.V.
111 8th Avenue, 13th Floor
New York, NY 10011

Robert S. Reder, Esq.
Drew S. Fine, Esq.
Milbank, Tweed, Hadley & McCloy LLP
1 Chase Manhattan Plaza
New York, NY 10005

Raymond O. Gietz, Esq.
Boris Dolgonos, Esq.
Weil, Gotshal & Manges LLP
767 5th Avenue
New York, NY 10153