



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

Mail Stop 3030

August 4, 2009

Via U.S. Mail

Gerhard F. Burbach  
President and Chief Executive Officer  
Thoratec Corporation  
6035 Stoneridge Drive  
Pleasanton, California 94588

**Re: Thoratec Corporation**  
**Form 10-K for the Fiscal Year Ended January 3, 2009**  
**File No. 000-49798**

Dear Mr. Burbach:

We have completed our review of your Form 10-K and related filings and have no further comments at this time.

Sincerely,

Kevin L. Vaughn  
Accounting Branch Chief