

Via Facsimile and U.S. Mail
Mail Stop 6010

October 5, 2006

Kevin T. Conroy
Chief Executive Officer
Third Wave Technologies, Inc.
502 S. Rosa Road
Madison, WI 53719

Re: Third Wave Technologies, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2005
Filed March 15, 2006
File Number: 000-31745

Dear Mr. Conroy:

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

Sincerely,

Jim Atkinson
Accounting Branch Chief