

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

May 5, 2011

Ms. Kathleen E. Redd Vice President, CFO and Secretary GenCorp Inc. P.O. Box 537012 Sacramento, CA 95853-7012

> RE: GenCorp Inc. Form 10-K for the Fiscal Year ended November 30, 2010 Form 10-Q for the Fiscal Quarter ended February 28, 2011 Schedule 14A filed on February 17, 2011 File No. 1-1520

Dear Ms. Redd:

We have reviewed your response letter dated April 8, 2011 and have the following additional comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

FORM 10-K FOR THE YEAR ENDED NOVEMBER 30, 2010

Item 8 - Consolidated Financial Statements and Supplementary Data, page 54

Note 1 - Summary of Significant Accounting Policies, page 59

Out of Period Adjustments, page 59

1. We note your response to prior comment 6 in our letter dated March 16, 2011. We note that you recorded a full valuation allowance on your net deferred tax assets during the second quarter of fiscal 2004. We note that AMT credits do not expire. Please advise us regarding the expiration of California R&D Credits. Ms. Kathleen E. Redd GenCorp Inc. May 5, 2011 Page 2 of 3

Considering this, it is unclear to us why you believe the full valuation of such DTAs was appropriate prior to 2008. Please advise.

2. In addition, please provide us with a table that clearly shows the actual reported amounts and the as-if corrected amounts of the affected income statement line items for fiscal 2008, 2009, 2010 and each quarterly period within those years. The corrections should be for the combined impact of the AMT and California R&D credits errors, excluding the impact of other unadjusted items.

Exhibit Index, page 128

3. We note your response to comment 15 in our letter dated March 16, 2011; however, we reissue the comment. It does not appear that you filed the full Credit Agreement, dated June 21, 2007, with your most recent Form 10-Q filed on April 8, 2011. Additionally, we note that you did not include Exhibit A when you filed the Second Amendment to the Credit Agreement as an exhibit to your Form 8-K, filed on March 19, 2010. Please file both credit agreements in full, with all applicable schedules and exhibits, with your next Exchange Act filing.

DEFINITIVE PROXY STATEMENT ON SCHEDULE 14A FILED FEBRUARY 17, 2011

Compensation Discussion and Analysis, page 26

Compensation Elements, page 27

4. We note your response to comment 18 in our letter dated March 16, 2011; however, we reissue the comment in part. In future filings, please disclose the fees earned by the compensation consultant in accordance with Item 407(e)(3)(iii)(A) of Regulation S-K.

Annual Cash Incentive Program, page 27

5. We note your response to comment 21 in our letter dated March 16, 2011. Please explain to us supplementally how you determined the base salaries included in the chart on page 25 of your response. We note that these base salaries do not correspond to the base salaries included in your Summary Compensation Table on page 34 of your proxy statement.

Long-Term Incentives, page 29

6. We note your response to comment 22 in our letter dated March 16, 2011. We note that you have not disclosed your performance targets as requested because

Ms. Kathleen E. Redd GenCorp Inc. May 5, 2011 Page 3 of 3

they are based on confidential projections and forecasts. Please provide your analysis supplementally as to how you would be competitively harmed if the specific performance goals or targets for the long-term incentive plan were disclosed, using the standard that would apply if you were requesting confidential treatment of information pursuant to Securities Act Rule 406 and Exchange Act Rule 24b-2. In future filings, please disclose the threshold, target, and maximum performance levels for each performance goal and the corresponding payout levels. See Item 402(b)(2)(v) and (vi) of Regulation S-K. In the event that you determine that disclosure of future target levels would result in competitive harm to the company pursuant to Securities Act Rule 406 or Securities Exchange Act Rule 24b-2, please discuss in future filings how difficult it will be for you to achieve the undisclosed target levels. Please refer to Instruction No. 4 to Item 402(b).

* * * *

You may contact Jessica Kane, Staff Attorney, at (202) 551-3235 if you have any questions regarding legal or disclosure matters. Please contact Jeffrey Gordon, Staff Accountant, at (202) 551-3866 or, in his absence, the undersigned at (202) 551-3689 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

John Hartz Senior Assistant Chief Accountant