

October 12, 2007

Via EDGAR and Federal Express
Securities and Exchange Commission
Division of Corporation Finance
One Station Place
100 F Street, NE
Washington, DC 20549-6010
Attn: Mr. Perry Hindin

**Re: SPX Corporation
Definitive 14A
Filed March 26, 2007
File No. 001-06948**

Dear Mr. Hindin:

This letter sets forth the responses of SPX Corporation (“we” or “our”) to comments on the above-referenced filing provided by the Staff of the Division of Corporation Finance of the Securities and Exchange Commission by letter dated August 21, 2007.

The Staff’s comments are restated below in bold type, and are in each case followed by our response.

Related Party Transactions, page 9

1. You describe the policies and procedures involving related transactions. Disclose whether the policies and procedures are in writing, and if not, how such policies and procedures are evidenced. See Item 404(b)(1)(iv) of Regulation S-K.

Response

In future filings, we will disclose whether the policies and procedures involving related transactions are in writing. If such policies and procedures are not in writing, we will disclose how such policies and procedures are evidenced.

2. You state that your audit committee considered certain transactions, relationships and arrangements involving your independent directors that it concluded did not impair your directors’ independence. Please provide greater detail so as to fully describe the nature of such transactions, relationships or arrangements. Please see Instruction 3 to Item 407(a) of Regulation S-K.

Response

We confirm that the transactions described in our proxy statement for the year ending December 31, 2006 (the “Proxy Statement”) include all transactions, relationships and arrangements involving our independent directors that the Audit Committee considered in reaching its conclusion that director independence was not impaired. In future filings, we will disclose all transactions, relationships and arrangements considered by the Audit Committee in determining director independence in accordance with the requirements of Item 407(a) of Regulation S-K.

Compensation Discussion and Analysis, page 20

3. You provide some description of how company performance affects annual bonuses and equity-based awards, but little discussion and analysis of the effect of individual performance, even though your disclosure suggests it is a factor considered by the compensation committee. For example, you state on page 24 that the named executive officers receive 80% of the final bonus amount based on business performance, with the remaining 20% awarded based on individual performance. However, you provide little discussion or analysis other than the statement that the compensation committee considered the individual performance of each named executive officer and determined that each had earned the full 20% available for individual performance based on the officer’s performance in executing certain business initiatives generally described on page 24. As another example, you state on page 25 that the compensation committee determined the number of shares granted to each named executive officer based on several factors, including the individual executive officer’s performance assessment. Please expand your disclosure to provide additional detail and an analysis of how individual performance contributed to actual 2006 compensation for the named executive officers. For example, disclose and discuss in greater detail the elements of individual performance, both quantitative and qualitative, and specific contributions the compensation committee considered in its evaluation and ultimate determination. See Item 402(b)(2)(vii) of Regulation S-K.

Response

In future filings, we will expand our disclosure to provide additional detail and analysis of how individual performance contributed to actual compensation for the named executive officers.

4. You state in the first paragraph of this section that the compensation committee generally targets compensation for named executive officers between the median and the 75th percentile of the market among comparable peer companies but that variations may and do occur. Disclose the percentile of market among comparable peer companies represented by the actual compensation paid to the named executive officers for 2006. To the extent actual compensation was outside the targeted percentile range, please provide discussion and analysis as to why.

Response

In future filings, we will disclose whether compensation for any named executive officer falls outside the targeted percentile range of market among comparable peer companies. To the extent actual compensation falls outside the targeted percentile range, we will provide discussion and analysis explaining the decision to award compensation outside the targeted percentile range.

5. We note that Watson Wyatt used tally sheets summarizing the compensation of each named executive officer as part of its review and evaluation of your executive compensation program, the results of which were discussed at a series of committee meetings. Please supplement this disclosure to discuss the extent to which the information in the tally sheets comprised information in addition to or different from the information presented in your tabular disclosure and how and why the compensation committee found the tally sheets useful in determining the various elements of compensation for your named executive officers.

Response

The Compensation Committee did not review tally sheets in 2006. The Committee reviewed draft disclosure as set forth in the Proxy Statement, including the total compensation figure, which management and the Compensation Committee viewed as analogous to the information contained in tally sheets.

As set forth in the Proxy Statement, the Compensation Committee did review tally sheets in 2005. These tally sheets contained information substantially similar to the disclosure contained in the Proxy Statement.

In future filings, if the Compensation Committee uses tally sheets, we will disclose such use and the extent to which the tally sheets contain any material information in addition to or different from the information presented in our tabular disclosure. In such situations, we will discuss how and why the Compensation Committee found such tally sheets to be useful in determining the compensation of our named executive officers.

Annual Bonuses, page 23

6. You state on page 23 that the compensation committee may reduce an award to any participant under the incentive plan, including a reduction to zero, based on factors it determines to be appropriate in its sole discretion. Provide a more detailed discussion as to what factors the committee may consider.

Response

Our Executive Annual Incentive Plan, described on page 23, is designed to be compliant with Section 162(m) of the Internal Revenue Code ("Section 162(m)"). We believe the Compensation Committee should, and our Compensation Committee does, remain free to consider any factors it, in its sole discretion, deems relevant when considering whether to reduce an award to any participant earned under the Executive Annual Incentive Plan.

In future filings, we will disclose factors actually considered by the Compensation Committee in the event it exercises discretion in reducing an award to any named executive officer.

7. Your disclosure regarding which performance metrics you used to evaluate the named executive officers is unclear and difficult to understand. For example, you state in the second paragraph of this section that the compensation committee established 2006 performance goals based on operating profit margin and operating cash flow. You state in the third paragraph in this section that the committee awarded bonuses to the named executive officers for 2006 by reference to the targets used to determine bonuses for your non-officer executive and management employees. Revise your disclosure to explain more fully what this means. You describe in the same paragraph different targets for corporate-level employees and segment employees. Please revise your disclosure to address the following questions. Which performance metrics were applicable to each named executive officer? What is bonus operating cash flow and how is it different than operating cash flow? What is meant by the statement that "bonus operating cash flow targets were equivalent to 100% conversion to bonus operating income?"

Response

In future filings, if the Compensation Committee continues to award bonuses to named executive officers by reference to the targets used to calculate bonuses for non-named executive officers, we will revise our disclosure to clarify the interaction between our Section 162(m) Executive Annual Incentive Plan and such targets.

In addition, in future filings, we will disclose: which performance metrics apply to each named executive officer; the definition of bonus operating cash flow, including how it differs from operating cash flow; and the meaning of the

statement "bonus operating cash flow targets were equivalent to 100% conversion to bonus operating income," or any equivalent statement.

8. Your discussion in the first three whole paragraphs on the top of page 24 and your disclosure in footnotes 2, 3 and 4 in your Grants of Plan-Based Awards table on page 35 are also unclear and difficult to understand and do not appear to explain how the actual 2006 bonus levels were

calculated. Revise your disclosure to address the following questions. What performance metrics apply to which executive officers and how are they weighed? How do achievements of such metrics result in the 80% and 20% portions of the final bonus amounts referenced in the fourth whole paragraphs on page 24? How do the 80% and 20% portions of the final bonus amount correlate to the 0-200% range of the target bonus amount? Please consider providing examples, for both corporate-level and segment-level named executive officers, illustrating how you derived an officer's actual incentive award payout from each of his performance measures, identifying each performance measure's target payout and if and how such performance measures and target payout were weighed. Also disclose the officer's actual percentage of achievement of each performance measure's target and the corresponding payout in dollars and as a percentage of the target payout. Furthermore, disclose whether such calculations determined only the 80% portion of the final bonus based on business performance or influenced the 20% portion based on individual performance as well.

Response

In future filings, we will revise our disclosure to explain: which performance metrics apply to each named executive officer and how they are weighed; how achievements of such metrics result in the 80% and 20% portions of the final bonus amounts; and how the 80% and 20% portions of the final bonus amount correlate to the 0-200% range of the target bonus amount. We will also consider providing examples, including examples for both corporate-level and segment-level named executive officers, illustrating how we derived an officer's actual incentive award payout from each of his or her performance measures, identifying each performance measure's target payout and if and how such performance measures and target payout were weighed (for example, if Mr. Y has earned a \$100 bonus based on achievement of corporate metrics, \$80 is automatically awarded and the other \$20 is awarded subject to the evaluation of his personal performance). We will also continue to disclose each named executive officer's actual percentage of achievement of each performance measure's target and the corresponding payout in dollars and as a percentage of the target payout.

9. You have not provided a quantitative discussion of the terms of all of the necessary targets to be achieved in order for your executive officers to earn their incentive compensation. Please disclose the specific items of company and segment performance, such as segment bonus operating income and the individual performance objectives used to determine incentive amounts and how your

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incentive awards are specifically structured around such performance goals and individual objectives. To the extent you believe that disclosure of the targets is not required because it would result in competitive harm such that you may omit this information under Instruction 4 to Item 402(b) of Regulation S-K, please provide on a supplemental basis a detailed explanation for such conclusion. Please also disclose how difficult it would be for the named executive officers or how likely it will be for you to achieve the undisclosed target levels or other factors. General statements regarding the level of difficulty or ease associated with achieving performance goals are not sufficient. In discussing how difficult it will be for an executive or how likely it will be for you to achieve the target levels or other factors, please provide as much detail as necessary without providing information that would result in competitive harm.

Response

It is our present intention to disclose additional details regarding our actual 2007 performance targets in our proxy statement for the year ending December 31, 2007, including the specific items of company and segment performance used to determine incentive amounts, and how our incentive awards are specifically structured around such performance goals. Additionally, we intend to expand our discussion of the impact of individual performance objectives on determination of incentive compensation.

Nonqualified Deferred Compensation in 2006, page 43

10. Expand the disclosure in footnote (2) consistent with the Instruction to Item 402(i)(2) of Regulation S-K.

Response

In future filings, we will expand our disclosure in footnote (2) consistent with the Instruction to Item 402(i)(2) of Regulation S-K.

Potential Payments Upon Termination or Change-in-Control, page 44

11. Identify and quantify, to the extent applicable, the additional benefits listed in footnote 7 on page 44 for Messrs. Kearney, O'Leary and Foreman and the benefits for Messrs. Canterna and Kowalski listed on the bottom of page 49 and top of page 50. See instruction 2 to Item 402(j) and instruction 4 to Item 402(c)(2)(ix) of Regulation S-K.

Response

We believe that our disclosure under footnote 7 of perquisites to be received by the named executive officers in connection with a termination or change-in-control is compliant with instruction 2 to Item 402(j) and instruction 4 to Item 402(c)(2)(ix) of Regulation S-K. We disclose all perquisites to be received,

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and quantify all perquisites that exceed the greater of \$25,000 or 10% of the total perquisites. Each unquantified perquisite listed in footnote 7 on page 44 for Messrs. Kearney, O'Leary and Foreman and Messrs. Canterna and Kowalski listed on the bottom of page 49 and top of page 50 does not exceed the greater of \$25,000 or 10% of the total perquisites.

In connection with this response, we acknowledge the following:

- 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 filing; 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 would like additional information or desire to discuss our responses to your comments, please contact the undersigned via telephone at (704) 752-4485 or via e-mail at kevin.lilly@spx.com.

Very truly yours,

/s/ Kevin L. Lilly

Kevin L. Lilly
Senior Vice President, Secretary and
General Counsel