PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT OBJECTIVES AND GUIDELINES
FULL DISCRETION COMMODITY PROGRAM

ADDENDUM H

I. GENERAL

The Public School Employees' Retirement Board (the Board) is responsible for formulation of investment policy for the Public School Employees' Retirement Fund (the Fund). The Fund is the largest public pension fund in the Commonwealth of Pennsylvania and the custodian of the Fund's assets is the State Treasurer of the Commonwealth of Pennsylvania. The Board, as trustee for the Fund, has exclusive investment control of the Fund, and shall invest the moneys in the Fund as authorized by the laws of the Commonwealth of Pennsylvania. Part of this responsibility includes development of investment policy, informed selection and retention of investment advisors, and ongoing monitoring of investment results. All capitalized references to employment/agent titles (i.e. Consultants, Chief Investment Officer, etc.) shall refer to employees/agents of the Fund.

II. OBJECTIVES AND GOALS

This actively managed commodity program (commodities including, but not limited to, precious metals, base metals, energies, agriculturals, and livestocks) will consist of commodity forwards, futures and options, commodity-related equities, a short duration fixed income portfolio backing the commodity derivatives, and, when approved by the Chief Investment Officer, inflation-linked bonds. The objectives are: 1) Build a portfolio of commodities and commodity-related securities designed to provide strong relative performance in a rising-inflation environment, and 2) Earn incremental returns by actively managing the commodity portfolio.

It is required that this portfolio be managed with the care, skill, prudence, and diligence, under such circumstances then prevailing, that a prudent investor acting in a like capacity and familiar with such matters would use in making its own investments of like character and with like aims.

Manager

The manager's continued adherence to their investment style that was presented to the Board at the time of their hiring is of major importance. Performance comparisons will be made quarterly against relevant market indices for reference purposes.

Benchmark

The benchmark will be agreed upon, in writing, prior to the funding of the portfolio.

Measurement Process

Active Managers

Each commodity portfolio will be measured on a total return basis (yield plus appreciation) each month. On a three-year annualized rolling return basis, results will be judged as follows, net of all manager fees and transaction costs:

A. Relative performance on a risk adjusted basis versus a peer manager universe as follows:

1. Median and above	Acceptable
2. Below median	Unacceptable; Watch Closely

B. Information ratio (excess return/excess risk vs. the benchmark) as follows:

1. Information ratio $\geq$ 0.50	Acceptable
2. Information ratio < 0.50	Unacceptable; Watch Closely

Quarterly performance will be evaluated to monitor progress toward attainment of these goals. It is understood that there are likely to be short-term periods during which performance deviates from market indices. During such times, greater emphasis shall be placed on performance comparisons with managers employing similar styles. Firms experiencing poor short-term performance or disruption at the organizational level will be monitored closely by the Finance Committee, Consultant and Chief Investment Officer. These include changes of ownership, significant personnel changes and substantial deviation from their investment style.

III. RISK

The Board judges the question of risk to be categorized into groups of concerns including potential loss of capital, volatility and variability of returns, credit or bankruptcy, liquidity and diversification. These are applied to the market, sectors of the market, and individual issues. To a varying degree, each of these points is addressed implicitly or explicitly in different sections of these guidelines, but for clarity, they are summarized as follows:

A. **Capital Loss -** Preservation of capital is of major concern. It is the manager's responsibility to avoid, or minimize capital losses relative to the benchmark.

B. **Credit or Bankruptcy**

Note: Unless otherwise noted herein, all references to credit ratings throughout this document shall be read as applying to the ratings issued by Moody’s, Standard & Poor’s, and Fitch Investor Service (hereafter referred to as the “Credit Rating Agencies”). If each of the Credit Rating Agencies assigns a credit rating, the credit rating will be the middle of the three ratings (for example, if Moody’s rates a security Baa2, S&P rates a security BB+, and Fitch rates a security BBB-, the middle credit rating would be considered BBB- by Fitch). If only two of the three Credit Rating Agencies assign a credit rating, the credit rating will be the lower of the two. If only one of the Credit Rating Agencies assigns a credit rating, that credit rating will apply.

Common and Preferred Stocks

Stock investments will be in recognized companies. At least 80% of the securities held in the portfolio at market value must have been listed on the country exchanges for a minimum of 3 years. Spin-offs of companies are considered to have a listing equal to that of the company from which it was spun-off. New companies formed through the result of a merger are considered to have a listing equal to that of the acquirer.

Fixed Income Securities

Domestic and International Bonds – Only securities rated Baa3/BBB- or better are acceptable.

C. **Liquidity -** To insure the flexibility necessary to take defensive action when appropriate, positions should be in issues with sufficient float so as to facilitate, under most market conditions, prompt sale without severe market effect.

D. **Diversification -** Concentration in any one commodity, issue, issuer, industry, issuer sector or geographic area is to be avoided. Adherence to the guidelines documented under IV. Portfolio Definition and any amendments thereto will meet the Fund's diversification requirement.

E. **Hedging -** The foreign currency exposure of the portfolio may be hedged back to the U.S. dollar using forwards and options on foreign exchange contracts. From 0% to 100% of the foreign bond or currency exposure of a portfolio may be hedged back to the U.S. Dollar.

F. **Counterparties -** The commercial and investment banks used for approved OTC futures, approved OTC options, or forward/spot currency transactions must be rated A3 or better by Moody's Counterparty Ratings, (if not rated by Moody's, then rated A- or better by Standard and Poor's Counterparty Ratings or rated A- or better by Fitch's Bank Individual Ratings). Net forward/spot contracts, futures contracts, and option exposures to any counterparty will not exceed 20% of the notional value of the portfolio. Exposure is measured in net U.S. dollar equivalent terms (offsetting contracts will be netted for this purpose). Counterparty limits will not be applied to listed futures and options.

IV. PORTFOLIO DEFINITION

It is required that the account be continuously managed. This does not imply continuous activity. It requires staying current at all times with the objectives of the manager's investment policy for discretionary commodity portfolios and the requirements of these Guidelines.

Within that framework, the fact that this portfolio is to be commodity in nature, and within the following limitations, the manager has the discretion to make portfolio changes to accomplish the stated objectives.

Permitted Strategies

A. When holding futures as an alternative to stocks, actively manage a short duration fixed income portfolio (including cash equivalents) and hedge instruments, and roll futures positions to capture price discrepancies.
B. Holding commodity and commodity-related stocks.

General Stock Guidelines

A. The portfolio may have as much as 50% weighting in any single economic sector, but each sector with such weighting will be diversified with more than one industry.

B. The equity portfolio is expected to be invested in commodity and commodity-related stocks.

C. At no time may an individual equity manager's portfolio:
   1. own more than 5% of the sum total of all classes of outstanding common shares of any one corporation, or
   2. have 7% of the portfolio at market value invested in the securities of any corporation (which includes the total of common, convertible, preferred, and cash equivalents), or
   3. hold rights or warrants in the portfolio unless they were received as part of a corporate distribution, IPO, new issue, or if the result of another holding, or
   4. have more than 10% of the portfolio at market value invested in preferred issues, or
   5. have more than 10% of the portfolio at market value invested in convertible bonds.

D. Commodity portfolios will be geographically restricted to the countries covered in MSCI AC World Index. When a country is added to the MSCI AC World Index, the country will concurrently be added to the Fund's approved list upon MSCI's announcement of the addition. When a country is deleted from the MSCI AC World Index, the country will be deleted from the Fund's approved list 60 days after the effective date of the deletion. In the event that the manager owns a security when a country is removed from the MSCI AC World Index, the manager is instructed to notify the Chief Investment Officer to discuss their recommended course of action should the manager wish not to liquidate that security within 60 days after the effective date of the deletion.

   The Board may be receptive to inclusion of a country not covered in the MSCI All Country (AC) World Index. The decision to include any additional countries would center on a market's liquidity (see III. Risk, C.), efficient settlement procedures, and the manager's experience in that market. Written approval must be received from the Chief Investment Officer.

Country Allocations

Separately managed commodity portfolios will be governed by the following restrictions at market value:

A. Weighting in U.S. dollar-denominated securities, and U.S. cash may, when combined, range from 0% to 100% of a portfolio.

B. Investments in any individual country in the MSCI AC World Index ex. U.S. may range from 0% of the portfolio to the greater of 10% of the portfolio or 200% of the country's weighting in the MSCI AC World Index ex. U.S.

C. Investments in any individual country outside of the MSCI AC World Index are limited to not more than 3% of the portfolio. All countries outside of the MSCI AC World Index must be pre-approved in writing by the Chief Investment Officer.

D. Total investments outside of the MSCI AC World Index are limited to 10% of the portfolio.

E. ADR's, ADS's, EDR's, GDR's, GDS's, and IDR's listed on any MSCI AC World Index country or Luxembourg may be purchased for any approved country, but are included in the individual country limitations.

Direct investment in any country is contingent upon the Fund's custodian bank being able to successfully establish a sub-custodian relationship in that country. If the Fund's custodian bank currently does not have a sub-custodian relationship established on behalf of the Fund in a desired country, the manager should send a letter to the Fund requesting to establish a sub-custodian relationship. The Fund will then work with the custodian bank to establish a sub-custodian relationship in the market(s) the manager wishes to invest. However, establishing a sub-custodian relationship in all markets requested cannot be guaranteed.

General Fixed Income Guidelines

A. All subsequent references in these guidelines do not apply to issues or issuers fully guaranteed by the United States Government and its agencies rated Aaa/AAA.

B. At no time may the manager's portfolio:
   1. have 7% of its assets at market value invested in the securities of any corporation (including cash equivalents)(limit does not apply to securities of foreign governments) where the issuer has a credit rating of Baa3/BBB- or better, or
   2. have more than 25% of the portfolio at market value invested in asset-backed securities (including REMICs and CMOs) other than U.S. or U.S. agency guaranteed asset backed securities for which there is no limit. Asset backed securities must be rated A3/A- or better.

C. The manager's portfolio may have up to 10% of the portfolio at market value invested in convertible bonds (bonds convertible into common stock) that are trading at 110% of par value or less. The purchase of convertible bonds trading at more than 110% of par value is prohibited. When the convertible bonds in the portfolio are trading at more than 110% of par value, the manager must sell within 60 days or receive written permission from the Chief Investment Officer to continue to hold the security.

D. The manager's portfolio may have up to 10% of the portfolio at market value invested in 144A securities without registration rights as long as these securities have a credit rating of Baa3/BBB- or higher. Investments in 144A securities that have registration rights and are registered within 180 days of issue are permissible without limitation.

Note: These restrictions (B., C. and D. above) are to be taken in conjunction with the maturity and credit limits discussed above under "Risk" and below under "Fixed Income Securities."

Cash and Cash Equivalents

With respect to cash equivalents (securities with maturities of 15-months or under, securities putable within 12 months at face amount or higher, and variable rate securities that reset at least quarterly) overall quality and risk guidelines apply. Approved for use are: STIF, securities issued by the United States Government and its agencies, certificates of deposit with federally insured banks, bankers acceptances with money center banks who are members of the Federal Reserve System and insured by the FDIC, repurchase agreements with counterparties meeting the rating guidelines on page D-3, G. Counterparties, commercial paper rated P-1, securities rated A3/A- or better putable at face amount or higher within 12 months, and variable rate securities that reset at least quarterly and are rated A3/A- or better. No single issue used in this section may exceed 7% of the portfolio at market value at any time, (excluding STIF and U.S. Government securities).

Fixed Income Securities

Maturity Limits

All securities must have a final legal maturity of 40 years or less unless written permission is received from the Chief Investment Officer.

Duration Limits

Maximum effective or option-adjusted duration for the portfolio is one year.

Credit Ratings and Limits

A maximum of 25% of the portfolio at market value may be invested in bonds rated Baa [1-3]/BBB[- to +]. Non-rated debt securities are not permitted in the portfolio. The overall weighted-average rating of the portfolio must be A2/A or better. Asset backed securities must be rated A3/A- or better. 144A securities are permissible for companies that have a long term debt credit rating of Baa3/BBB- or better.

Downgrades

When a security in the portfolio is reclassified below the minimum credit ratings described above, the portfolio manager must either, using its best reasonable efforts, sell the security within 60 days of the reclassification or receive written permission from the Chief Investment Officer to hold the security.

Acceptable Securities

Portfolio instruments shall include but not be limited to:

1. U.S. Treasury bills and/or coupons
2. U.S. Agency discount notes and/or coupons
3. Domestic and Yankee commercial paper (including asset-backed commercial paper) and Euro commercial paper
4. Corporate domestic and Yankee obligations
5. Eurobonds issued by governments, government agencies, corporations or supranational entities
6. Eurodollar and Yankee bank obligations, CD's and time deposits
7. Domestic CD's, bankers' acceptances and bank notes
8. Medium term notes, deposit notes and term CD's
9. Floating rate notes
10. Asset-backed and agency mortgage backed securities
11. Loan participation agreements
12. Corporate bonds
13. Private placement securities
14. Real estate mortgage investment conduits
15. Collateralized mortgage obligation bonds
16. Repurchase agreements

Derivatives

Unless written permission is obtained from the Chief Investment Officer or unless otherwise described below, derivative investments, including, but not limited to, interest only and principal only strips, options, swaps, structured notes, swaptions, etc. are prohibited. The portfolio is to be managed so that the total net commodity exposure is equal to no greater than 100% of the underlying assets of the total portfolio (longs positions minus short positions can be no greater than 100%, i.e. no leverage).

Mortgage Loan Related Tranches

Real estate mortgage investment conduit (REMIC) and collateralized mortgage obligations (CMOs) are permissible investments in the portfolio and are included in the 25% asset-backed security limited noted in the General Fixed Income Guidelines above (limit excludes U.S. or U.S. agency guaranteed debt). REMICs and CMOs must be rated A3/A- or better.

Options

The portfolio shall be permitted to establish and maintain long and short commodity positions in listed options on commodities. In addition, the use of any form of derivative security or investment strategy that effectively leverages the portfolio is prohibited.

Forward Contracts

The portfolio shall be permitted to establish and maintain long and short commodity forward commitment positions. In addition, the use of any form of derivative security or investment strategy that effectively leverages the portfolio is prohibited.

Futures

The portfolio shall be permitted to establish and maintain long and short commodity positions in listed commodity futures contracts. In addition, the use of any form of derivative security or investment strategy that effectively leverages the portfolio is prohibited. All futures trades must be cleared through clearing brokers who have contracts with the Fund.

Insurance

Each manager must maintain Errors and Omissions coverage of at least $10 million and Fidelity Bond coverage of at least $5 million with an insurer with a financial strength rating of A- or better by A.M. Best. The Fidelity Bond must name the Board as a loss-payee. The Errors and Omissions coverage and Fidelity Bond must provide that the Board be given 30 days notice prior to any cancellation or change. The maximum deductible on both the Errors and Omissions coverage and the Fidelity Bond shall be either: (a) no greater than $500,000 if the manager has less than $1 billion in assets under management and no greater than $1 million if the manager has $1 billion or more in assets under management, or (b) no greater than 10% of the manager's retained earnings (equity) as disclosed in the manager's annual audited balance sheet which must be provided to the Board annually in a timely fashion. Insurance coverage may be in the name of the manager's parent organization as long as the manager is named in that policy or bond as an insured party.

Mutual/Commingled Funds and Unit Investment Trusts

Mutual funds (both closed and open-ended), commingled investment funds, unit investment trusts (i.e. SPDRs, HOLDRs, ishares, etc.), or any equivalent fund type funds are prohibited without the written permission of the Chief Investment Officer.

Market-Driven Breaches of Guidelines

PSERS recognizes that the portfolio will always be subject to fluctuations in market value. Market-driven breaches of the guidelines (breaches that occur due to market fluctuations) shall not be considered a violation of the guidelines as long as the manager corrects these breaches within 10 business days (unless an extended period of time is granted elsewhere in the guidelines and/or written permission is received from the Chief Investment Officer providing an extended period of time). Active breaches (breaches that occur due to purchase and sale activity) shall be considered a violation of the guidelines and must be corrected as soon as prudently possible.

Absolute Restrictions

Unless otherwise covered in these investment guidelines, all other investments are strictly prohibited without the written permission of the Chief Investment Officer. The following are examples of some of the prohibited types of transactions and is not meant to be an all-inclusive list: leverage of any sort, letter stock, private placements (excluding 144A securities), commodities, etc.

V. COMMUNICATIONS

The Board requires continual awareness of the portfolio manager's activity and position, both absolute and relative. To accomplish this, the following should be provided:

A. Daily - To Pennsylvania Treasurer's designated sub-custodian bank:

1. Confirmation of all trades.

2. On an as-needed basis, information for the Treasury Department to perform their pre-audit function.

B. Immediately -

1. When requested by the Chief Investment Officer and/or PSERS compliance staff - a complete listing of all holdings, pending trades, transaction history and any additional related information.

2. Notification of any compliance exceptions as they relate to these policies and applicable amendments to the Chief Investment Officer and the Director of External Public Markets, Risk & Compliance.

3. Notification of any material personnel or organizational change that could affect the management of PSERS portfolio.

C. Monthly- To Consultant and Chief Investment Officer:

1. End of month valuations in accordance with PSERS' requested format or, if PSERS does not request a specific format, the manager's usual format, containing cost and market valuations by security (including FX forward and spot positions), holdings by sector and country segmentations, and transaction summary register (purchases, sales, interest, other receipts/distributions). These reports should be in electronic form (i.e. Microsoft Excel, Adobe Acrobat files, etc.) and should be e-mailed to PSERS and PSERS' consultant. Written permission must be received from the Chief Investment Officer to send reports other than by e-mail.

2. Written and/or oral reports shall be supplied by the manager, in sufficient detail commentary so the Chief Investment Officer is apprised of fund status and any changes in philosophy or investment strategy. Periodic meetings shall be held with the manager to discuss performance results, economic outlook, investment strategy, organizational changes and other pertinent matters.

D. **Monthly** - To Director of External Public Markets, Risk & Compliance:

1. Performance reports for the month, quarter-to-date, year-to-date, rolling one-year, rolling three-year, and portfolio-to-date (since inception) as well as benchmark performance figures for each of those periods. Information is to be sent via e-mail to a designated Internet address within 5 business days from the end of each month.

E. **Quarterly** – To Director of External Public Markets, Risk & Compliance:

1. Provide written confirmation of adherence to these investment objectives and guidelines in the format provided by the Fund within 30 days from the end of each calendar quarter.

2. Provide a detailed attribution of returns for the portfolio for the previous quarter and year versus the established benchmark for the portfolio.

3. Provide a quarterly report showing the dispersion of the Fund's returns versus a representative composite return for the quarter, rolling one-year, rolling three-year, and since inception in a format provided by the Director of External Public Markets, Risk & Compliance.

F. **Other -** To Consultant and Chief Investment Officer:

Immediate telephone and/or letter advice should be forthcoming from the manager when information of an important nature, such as a change in ownership of the advisor, a change in the portfolio manager(s) managing the Fund's portfolio, or unusual market activity (oil embargo, monetary crisis, etc.) that is causing, or may cause, material impact on the Fund.

VI. AMENDMENTS AND REVIEW

It is the Board's intention through the consultant and Investment Staff to review manager compliance with this document monthly and if the guidelines are changed in any way, the foregoing will be so amended.

In the application and implementation of the Investment Objectives and Guidelines, the Chief Investment Officer has the authority to interpret the guidelines to meet individual portfolio needs and to determine the appropriateness of any investment. On material policy issues and amounts, the Chief Investment Officer and/or the Executive Director, in conjunction with the Chair of the Finance Committee and/or Chair of the Board, will evaluate and determine the appropriateness of any investment. All interpretations of material policy issues and dollar amounts will be reported to the Finance Committee at the next regularly scheduled meeting.

If at any time the manager feels that the objectives cannot be met, or the guidelines constrict performance, the Chief Investment Officer should be notified in writing. The manager is encouraged to suggest changes in these guidelines at any time. By signature the manager agrees to these Investment Objectives and Guidelines and shall perform in accordance herewith.

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Company Name	**Pennsylvania Public School Employees' Retirement System**
______________________________	______________________________
Portfolio Manager Signature	**Chief Investment Officer**
______________________________	
Portfolio Manager Name	
______________________________	______________________________
Date Accepted	**Date Proposed**