

Advanced Emissions Solutions, Inc.
Form 11-K
June 28, 2016

United States
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

x ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2015

or

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File Number: 000-54992

A. Full title of the plan and address of the plan, if different from the issuer named below:

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan

B. Name of the issuer of the securities held pursuant to the plan and address of its principal executive office:

Advanced Emissions Solutions, Inc.
9135 South Ridgeline Boulevard, Suite 200
Highlands Ranch, Colorado 80129

Financial Statements and Supplemental Schedules

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan

Years ended December 31, 2015 and 2014

with Report of Independent Registered Public Accounting Firm

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Trustee
Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan
Highlands Ranch, Colorado

We have audited the accompanying statements of net assets available for benefits of Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan (the "Plan") as of December 31, 2015 and 2014, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2015 and 2014, and the changes in net assets available for benefits for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

The supplemental information in the accompanying Schedule of Assets (Held at End of Year) has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is presented for the purpose of additional analysis and is not a required part of the financial statements but includes supplemental information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental information. In forming our opinion on the supplemental information in the accompanying schedule, we evaluated whether the supplemental information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information is fairly stated in all material respects in relation to the financial statements as a whole.

/s/ Hein & Associates LLP

Denver, Colorado
June 28, 2016

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan

Statements of Net Assets Available for Benefits

	As of December 31,	
	2015	2014
ASSETS		
Nonparticipant directed investments at fair value	\$5,640,406	\$17,102,897
Self directed investment accounts at fair value	1,006,582	1,647,279
Total investments at fair value	6,646,988	18,750,176
Receivables		
Employer contribution	360,770	558,187
Notes receivable from participants	36,046	44,926
Total receivables	396,816	603,113
Total assets	\$7,043,804	\$19,353,289
LIABILITIES		
Other liabilities	\$64,402	\$42,028
Total liabilities	64,402	42,028
Net assets available for benefits	\$6,979,402	\$19,311,261

See accompanying notes to the financial statements.

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan

Statements of Changes in Net Assets Available for Benefits

	Years Ended December 31,	
	2015	2014
Additions:		
Investments (loss) income:		
Net depreciation in fair value of nonparticipant directed investments	\$(4,574,152)	\$(2,096,804)
Net depreciation in fair value of self directed investment accounts	(84,835)	(47,236)
Interest	898	64
Dividends	222,043	318,980
	(4,436,046)	(1,824,996)
Contributions:		
Employer	441,703	555,287
Participants	744,126	906,510
Rollover	30,450	38,140
Other	16,426	11,333
	1,232,705	1,511,270
Interest income on notes receivable from participants	1,380	1,605
Total net additions	(3,201,961)	(312,121)
Deductions:		
Participant withdrawals and distributions	9,126,801	1,663,206
Administrative expenses	3,097	3,498
Total deductions	9,129,898	1,666,704
Net change in net assets available for benefits	(12,331,859)	(1,978,825)
Net assets available for benefits at beginning of year	19,311,261	21,290,086
Net assets available for benefits at end of year	\$6,979,402	\$19,311,261

See accompanying notes to the financial statements.

Notes to Financial Statements

Note 1 - Description of the Plan

General

The Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan (the "Plan") is a defined contribution plan covering the employees of Advanced Emissions Solutions, Inc., and its wholly-owned subsidiaries ADA-ES, Inc. and Advanced Clean Energy Solutions, LLC (collectively the "Company"). The Plan's investments are held in a trust fund (the "Trust") managed by the trustee, Capital Bank and Trust Company (the "Trustee"). The Plan's administrators and record keepers are American Funds Distributors, Inc. and Advanced Emissions Solutions, Inc. (collectively the "Administrator").

Employees are eligible to participate in the Plan upon the employees' date of hire if they are at least 21 years of age.

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of plan termination, participants will become 100% vested in their accounts.

Contributions

Each year, participants may contribute up to 100% of annual compensation, either on a "before-tax" deferred compensation or on an "after-tax" ("Roth contributions") basis, not to exceed \$18,000 in 2015 and \$17,500 in 2014 (or \$24,000 and \$23,000, respectively, for individuals age 50 or older electing to make catch-up contributions).

Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans ("rollover"). Participants direct the investment of their contributions into various investment options offered by the Plan. The Plan includes an auto-enrollment provision whereby all newly eligible employees are automatically enrolled in the Plan unless they affirmatively elect not to participate in the Plan. Automatically enrolled participants have their deferral rate set at 2% of eligible compensation and their contributions invested in a designated target date fund based upon age until retirement until changed by the participant. The Company can elect to contribute up to 100% of the first 7% of base compensation that a participant qualifying for the Company match contributes to the Plan, excluding any catch-up contributions. Participants are eligible to begin receiving the Company match following the completion of one Year of Service, as defined in the Plan. The matching Company contribution may be in the form of cash or Advanced Emissions Solutions, Inc. common stock. Additionally, the Company may make nonelective contributions to the Plan. Participants are eligible to receive the nonelective Company contribution if they have completed one Year of Service and 501 Hours of Service, as defined in the Plan, during the applicable Plan Year, which is January 1 - December 31.

The Company did not have any non-cash employer matching contributions in the form of common stock to the Plan for the years ended December 31, 2015 and December 31, 2014.

Participant Accounts

Each participant's account is credited with the participant's contributions and Company matching contributions, as well as allocations of the Company's elective contributions and Plan earnings. Participant accounts are charged with an allocation of administrative expenses that are paid by the Plan. Allocations are based on participant earnings, account balances, or specific participant transactions, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting

Participants are vested immediately in their contributions plus actual earnings thereon. Vesting in the Company's matching and nonelective contribution portions of their accounts is based on years of continuous service. A participant vests in the employer portion of the matching and nonelective contributions based on the following schedule:

Years of Service	Vested Percentage
Less than 2	—%
2	20%
3	40%
4	60%
5	80%

6 100%

6

A participant also becomes 100% vested in the Company match and nonelective contributions if the participant is employed on or after the Normal Retirement Age (e.g., 65 as defined in the Plan), if the participant terminates employment due to their death or as a result of becoming disabled or if the Company terminates the Plan.

Administrative Expenses

Each participants account is charged with an allocation of administrative expenses.

Notes receivable from participants

Subject to their account balance, participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or 50% of their account balance. The loans are secured by 50% of the balance in the participant's account. The loan interest rate, determined at the time of the loan, is set monthly at 1% above the prime rate, as defined in the Plan. Principal and interest is paid ratably through monthly payroll deductions and partial repayments or accelerated payments are permitted. These loans are recorded at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded when it is earned.

Related fees are deducted from participants' accounts as incurred. No allowance for credit losses has been recorded as of December 31, 2015 or 2014.

Payment of Benefits

On termination of service due to death, disability, or retirement, a participant may elect to receive either a lump sum amount equal to the value of the participant's vested interest in his or her account, or installments over a period of not more than their assumed life expectancy (or the assumed life expectancies of the participant and their beneficiary).

Forfeited Accounts

At December 31, 2015 and 2014, forfeited accounts totaled \$87,177 and \$77,593 respectively. The unvested balance as of December 31, 2015 and December 31, 2014 were used to reduce employer contributions that were receivable as of the end of the respective Plan year.

The above information is intended as a general description of the Plan's operating guidelines. Reference should be made to the Plan documents for more specific provisions.

Note 2 - Summary of Accounting Policies

Basis of Accounting

The accompanying financial statements have been prepared on the accrual basis of accounting.

Use of Estimates

The preparation of the financial statements in conformity with generally accepted accounting principles requires estimates and assumptions that affect the amounts reported in these financial statements and accompanying notes. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Plan's valuation policies utilize information provided by the investment advisers and custodians.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net (depreciation) appreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Notes receivable from participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Interest income is recorded on the accrual basis. Related fees are deducted from participants' accounts and are expensed when they are incurred.

Payment of Benefits

Benefits are recorded when paid.

Expenses

Certain expenses of maintaining the Plan are paid by the Plan, unless otherwise paid by the Company. Expenses that are paid by the Company are excluded from these financial statements. Fees related to the administration of notes receivable from participants are charged directly to the participant's account and are included in expenses. Investment related expenses are presented as administrative expenses in the statement of change in net assets available for benefits. The Company pays the audit fees on behalf of the Plan.

Recent Accounting Pronouncements

In May 2015, the FASB issued ASU 2015-07, "Disclosures for Investments in Certain Entities That Calculate Net Assets Value per Share (or Its Equivalent)", ("ASU 2015-07"). ASU 2015-07 removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. It also removes the requirement to make certain disclosures for all investments that are eligible to be measured at fair value using the net asset value per share practical expedient. Rather, those disclosures are limited to investments for which the entity has elected to measure the fair value using that practical expedient. ASU 2015-07 will be effective for the Plan beginning in 2016, with early adoption permitted, and will be applied retrospectively. The Plan elected to adopt ASU 2015-07 effective January 1, 2015. There was no material impact to the Company's financial statements or disclosures from the adoption of this standard.

In July 2015, the Financial Accounting Standards Board ("FASB") issued ASU 2015-12, "Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): (Part I) Fully Benefit-Responsive Investment Contracts, (Part II) Plan Investment Disclosures, (Part III) Measurement Date Practical Expedient", ("ASU 2015-12"). ASU 2015-12 simplifies certain aspects of employee benefit plan accounting while satisfying the needs of users of financial statements, including plan participants and the Department of Labor. ASU 2015-12 is effective for plan years beginning after December 15, 2015, with early adoption permitted. The Plan elected to adopt ASU 2015-12 effective January 1, 2015. As allowed by this ASU, the historical disclosure of individual investments which comprise 5% or more of total net assets available for benefits, as well as the net appreciation or depreciation of fair values by type has been eliminated. The adoption of ASU 2015-12 did not have an impact on the reported net assets or changes in net assets.

Note 3 - Investments

The following table presents nonparticipant directed investments by general type:

	As of December 31,	
	2015	2014
Advanced Emissions Solutions, Inc. common stock	\$784,309	\$9,975,537
Money market funds	45,529	77,593
Mutual funds	4,810,568	7,049,767
	\$5,640,406	\$17,102,897

During 2015 and 2014, the components of the investment (loss) income related to the Plan's nonparticipant directed investments (including gains and losses on investments bought and sold, as well as held during the year) depreciated in value and earned interest and dividends as follows:

	Years Ended December 31,	
	2015	2014
Investments (loss) income:		
Net depreciation in fair value of nonparticipant directed investments	\$(4,574,152)	\$(2,096,804)
Dividends	206,301	286,962
	\$(4,367,851)	\$(1,809,842)

The following table presents participant directed investments by general type:

	As of December 31,	
	2015	2014
Common Stocks	\$704,861	\$738,093
Money market	229,826	732,906
Mutual Funds	71,895	176,280
	\$1,006,582	\$1,647,279

During 2015 and 2014, the components of the investment (loss) income related to the Plan's participant directed investments (including gains and losses on investments bought and sold, as well as held during the year) depreciated in value and earned interest and dividends as follows:

	Years Ended December 31,	
	2015	2014
Investments (loss) income:		
Net depreciation in fair value of nonparticipant directed investments	\$(84,835)	\$(47,236)
Interest	898	64
Dividends	15,742	32,018
	\$(68,195)	\$(15,154)

Note 4 - Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company uses the hierarchy prescribed in the accounting guidance for fair value measurements, based upon the available inputs to the valuation and the degree to which they are observable or not observable in the market. The three levels in the hierarchy are as follows:

•Level 1 Inputs - Quoted priced (unadjusted) for identical assets or liabilities in active markets that are accessible as of the measurement date;

•Level 2 Inputs - Inputs other than quoted prices within Level 1 that are observable either directly or indirectly, including but not limited to quoted prices in markets that are not active, quoted prices in active markets for similar assets or liabilities and observable inputs other than quoted prices such as interest rates or yield curves;

•Level 3 Inputs - Unobservable inputs reflecting the Company's own assumptions about the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk

The following is a description of the valuation techniques and inputs used for each major class of assets measured by the Plan. There have been no changes in the methodologies used at December 31, 2015 and 2014.

Advanced Emissions Solutions, Inc. common stock: The Company's stock is valued using the closing market price reported on the NASDAQ on the last business day of the year. Historically the market price of the Company's stock was reported on the NASDAQ Capital Markets, but as of March 30, 2015, the Company's common stock was delisted from the NASDAQ Capital Markets and now trades on the OTC Pink® Marketplace - Limited Information Tier under the trading symbol "ADES".

Common stock: Valued at the closing price reported on the active market on which the individual securities are traded.

Mutual funds: Valued at the daily closing prices as reported by the fund. Mutual funds held by the Plan are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission. These funds are required to publish their daily net asset value ("NAV") and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Self Directed Accounts: The Self Directed Accounts hold common stock, mutual funds and money market funds. The common stock is valued at the closing price reported on the active market on which the individual securities are traded.

The mutual funds and money market funds are valued at the quoted NAV of shares held by the Plan at year-end.

The following tables set forth by level within the fair value hierarchy the Plan investment assets at fair value, as of December 31, 2015 and 2014. As required by Financial Accounting Standards Codification 820, Fair Value Measurement and Disclosures, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurements:

	As of December 31, 2015			
	Fair Value Measurement Using			
	Level 1	Level 2	Level 3	Assets at Fair Value
Advanced Emissions Solutions, Inc. common stock *	\$784,309	\$	—\$	—\$784,309
Common stock	704,861	—	—	704,861
Money market	229,826	—	—	229,826
Mutual funds	** 4,927,992	—	—	4,927,992
Total assets at fair value	\$6,646,988	\$	—\$	—\$6,646,988

	As of December 31, 2014			
	Fair Value Measurement Using			
	Level 1	Level 2	Level 3	Assets at Fair Value
Advanced Emissions Solutions, Inc. common stock *	\$9,975,537	\$ —	\$ —	—\$9,975,537
Common stock	738,093	—	—	738,093
Money market	732,906	—	—	732,906
Mutual funds	** 7,303,640	—	—	7,303,640
Total assets at fair value	\$18,750,176	\$ —	\$ —	—\$18,750,176

*Nonparticipant-directed

** Nonparticipant-directed and participant directed

Note 5 - Tax Status

The underlying standardized prototype plan has received an opinion letter from the Internal Revenue Service (the "IRS") dated March 31, 2014 stating that the written form of the underlying prototype document is qualified under Section 401 of the Internal Revenue Code (the "Code"). Any employer adopting this form of the plan will be considered to have a plan qualified under Section 401 of the Code and therefore, the related trust is tax-exempt. Once qualified, the Plan is required to operate in conformity with the IRC to maintain its qualification. The Plan Administrator believes the Plan is being operated in compliance with the applicable requirements of the Code and therefore, believes the Plan is qualified and the related trust is tax-exempt.

Accounting principles generally accepted in the United States ("US GAAP") require plan management to evaluate uncertain tax positions taken by the Plan. The financial statement effects of a tax position are recognized when the position is more likely than not, based on the technical merits, to be sustained upon examination by the IRS. The Plan Administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2015, there are no uncertain positions taken or expected to be taken. The Plan has recognized no interest or penalties related to uncertain tax positions. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan Administrator believes it is no longer subject to income tax examinations for years prior to 2012.

Note 6 - Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits.

Note 7 - Transactions with Parties-in-Interest

Party-in-interest transactions include the investment in the common stock of the Company and funds maintained by American Funds. Permissible Plan loans to participants are also party-in-interest transactions. These transactions are exempt from the prohibited rules under ERISA.

Note 8 - Contribution Corrections

Excess Employer Contributions

During 2015, the Company incorrectly matched employee contributions that included severance compensation in the amount of \$41,648. The excess contributions were adjusted as of December 31, 2015 by allocating the excess contributions from the participants account to the forfeitures balance.

Delinquent Participant Contributions

The Company failed to transmit certain participant contributions to the Plan within the time period prescribed by ERISA during the years 2007 through 2014. Late transmissions of participant contributions constitute a prohibited transaction under ERISA section 406, regardless of materiality. The Company transmitted all the delinquent participant contributions to the Plan. The Company reimbursed the Plan for lost earnings in the amount of \$8,820 on July 21, 2015.

Note 9 - Excess Contributions Payable to Participants

The Plan is subject to certain non-discrimination rules under ERISA and the Code. For the years ended December 31, 2015 and 2014, the Company was required to aggregate the Plan with the Profit Sharing Retirement Plan of BCSI, LLC (the "BCSI Plan"), a wholly owned subsidiary of Advanced Emissions Solutions, Inc., for required non-discrimination tests. Although the Plan passed all material required non-discrimination tests when evaluated alone, the Plan failed certain of the non-discrimination tests under the Code when aggregated with the BCSI Plan. The specific test failures were due to lower contribution percentages by non-highly compensated eligible employees relative to the contribution percentages of highly compensated eligible employees of the Company and BCSI, LLC. In order to meet the requirements of the non-discrimination rules, certain participants will forfeit a portion of the Company match and the Plan will refund a portion of the contributions made by highly compensated participants, in accordance with applicable provisions of the Code. The forfeitures of the Company match are reflected net of the employer contribution receivable on the Statements of Net Assets Available for Benefits. The refunds are included within Other liabilities in the Statements of Net Assets Available for Benefits. Employer and participant contributions on the Statements of Changes in Net Assets Available for Benefits are reflected net of the refundable contributions. Employer contributions were reduced by zero and \$4,215, and Participant contributions were reduced by \$38,141 and \$42,028, for the years ended December 31, 2015 and 2014, respectively, as a result of the excess contributions.

Note 10 - Partial Plan Termination

As a result of a reduction of the Plan Sponsor's workforce in 2015, the Plan experienced a partial plan termination as defined by ERISA. Under ERISA, a partial plan termination may occur if a significant percentage of the Plan participants are terminated because of an action taken by the Plan Sponsor. If a partial plan termination occurs, full vesting is required for the participants terminated as a result of the employer-initiated action, but the remaining participants' vesting continues to be determined according to the plan provisions.

All terminated employees who were participants in the Plan were fully vested in their account balances at the later of the date of the partial plan termination or the date a participant was subsequently involuntarily terminated. As of December 31, 2015, the Plan has recorded a receivable from the Company and payable to participant for \$26,261 related to former plan participants who have withdrawn funds from the Plan but have yet to be paid their vested amount.

Note 11 - Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500 due to the Form 5500 being prepared on a cash basis:

	As of December 31,	
	2015	2014
Net assets available for benefits per the financial statements	\$6,979,402	\$19,311,261
Employer contribution receivable	(360,770)	(558,187)
Contributions payable to participants	64,402	42,028
Net assets available for benefits per the Form 5500	\$6,683,034	\$18,795,102

The following is a reconciliation of the changes in net assets available for benefits per the financial statements to the changes in net assets available for benefits per the Form 5500 due to the Form 5500 being prepared on a cash basis:

	Years Ended December 31,	
	2015	2014
Net change in net assets available for benefits per the financial statements	\$(12,331,859)	\$(1,978,825)
Employer contributions receivable allocated to participants at December 31	113,361	(413,592)
Excess contributions payable to participants	64,402	42,028
Prior year excess contributions paid to participants	42,028	—
Net change in net assets available for benefits per the Form 5500	\$(12,112,068)	\$(2,350,389)

Note 12 - Subsequent events

The Plan utilized \$45,529 of the unallocated forfeitures balance in order to adjust all outstanding contributions due to Plan participants as of December 31, 2015.

As a result of a reduction of the Plan Sponsor's workforce in 2016 and 2015, the Plan will experience a partial plan termination as defined by ERISA in 2016. As such, full vesting is required for the participants terminated as a result of the employer-initiated action, but the remaining participants' vesting continues to be determined according to the plan provisions.

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan
 Schedule H, line 4i - Schedule of Assets (Held at End of Year)

December 31, 2015

EIN: 27-5472457

Plan Number: 001

Identify of Issue, Borrower, Lessor or Similar Party	Description of Investments, including Maturity Date, Rate of Interest, Collateral, Par of Maturity Value	Cost	Current Value
Common Stock:			
Advanced Emissions Solutions, Inc. common stock *	109,847 Shares	1,308,683	\$784,309
Self-directed Common Stock:			
Amerco Inc.	12 Shares	**	4,674
FMC Corp.	195 Shares	**	7,630
Apple Inc.	739 Shares	**	77,787
AFLAC Inc.	300 Shares	**	17,970
BP p.l.c.	203 Shares	**	6,338
The Walt Disney Company	403 Shares	**	42,347
Phillips 66	90 Shares	**	6,546
National Oilwell Varco, Inc.	300 Shares	**	10,047
MSC Industrial Direct Co. Inc.	200 Shares	**	11,254
Activision Blizzard, Inc.	1,089 Shares	**	42,155
Bio-Techne Corp.	200 Shares	**	18,000
CarMax Inc.	154 Shares	**	8,311
Visa Inc.	200 Shares	**	15,510
ConocoPhillips	102 Shares	**	4,741
Canadian Natl Railway Company	400 Shares	**	22,352
Vail Resorts Inc.	150 Shares	**	19,199
Vivint Solar, Inc.	100 Shares	**	956
CaesarStone Sdot-Yam Ltd.	60 Shares	**	2,600
UnitedHealth Group Incorporated	370 Shares	**	43,527
Polaris Industries Inc.	115 Shares	**	9,884
Costco Wholesale Corporation	60 Shares	**	9,690
Groupon, Inc.	4,100 Shares	**	12,587
RMR Group, Inc.	14 Shares	**	202
Rosetta Stone, Inc.	2,500 Shares	**	16,725
Microsoft Corporation	97 Shares	**	5,380
Costco Wholesale Corporation	49 Shares	**	7,986
Nabors Industries Ltd.	100 Shares	**	851
Government Properties Income Trust	1,328 Shares	**	21,069
JPMorgan Chase & Co.	43 Shares	**	2,839
The Goldman Sachs Group Inc.	25 Shares	**	4,522
Express Scripts Holding Company	234 Shares	**	20,454
Casey's General Stores, Inc.	10 Shares	**	1,205

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Alcoa Inc.	101	Shares **	996
Enbridge Energy Partners, L.P.	250	Shares **	5,768

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Identify of Issue, Borrower, Lessor or Similar Party	Description of Investments, including Maturity Date, Rate of Interest, Collateral, Par of Maturity Value	Cost	Current Value
Lowe's Companies Inc.	167 Shares	**	12,699
Clean Energy Fuels Corp.	130 Shares	**	468
Discover Communications, Inc.	600 Shares	**	15,132
Carter Holdings	10 Shares	**	890
Hasbro Inc.	350 Shares	**	23,576
FireEye Inc.	96 Shares	**	1,991
Gilead Sciences Inc.	41 Shares	**	4,149
Albemarle Corporation	119 Shares	**	6,665
Under Armour, Inc. Class A	86 Shares	**	6,933
Orbital ATK, Inc.	50 Shares	**	4,467
Vista Outdoor, Inc.	100 Shares	**	4,451
NOW Inc.	75 Shares	**	1,187
Chipotle Mexican Grill, Inc.	25 Shares	**	11,996
3D Systems Corporation	800 Shares	**	6,952
Berkshire Hathaway Inc.	200 Shares	**	26,408
Amazon.com Inc.	100 Shares	**	67,589
Encana Corporation	500 Shares	**	2,545
The ExOne Company	496 Shares	**	4,980
Alphabet, Inc. Class A	5 Shares	**	3,890
Alphabet, Inc. Class C	5 Shares	**	3,794
Venaxis, Inc.	39,400 Shares	**	11,997
Mutual Funds:			
American Funds Europacific GR R2	* 4,446 Shares	201,992	196,270
American Funds Growth Fund of Amer R2	* 7,331 Shares	262,101	291,035
American Funds New Economy R2	* 675 Shares	24,787	23,091
American Funds New Perspective R2	* 69 Shares	2,549	2,399
American Funds New World R2	* 1,739 Shares	90,826	84,378
American Funds Small Cap World R2	* 5,324 Shares	210,107	214,305
Employer Stock Awaiting Purchase Fund	* — Shares	—	—
Franklin Small Cap Growth C	384 Shares	6,274	5,663
Investco Endeavor Fund C	364 Shares	6,615	5,232
Invesco Energy C	7,020 Shares	240,364	136,672
Invesco Gold & Precious Metals Fund C	49,746 Shares	340,510	142,772
American Funds American Mutual R2	* 1,351 Shares	48,015	45,258
American Funds Capital World G/I R2	* 10,525 Shares	407,274	451,404
American Funds Fundamental Invs R2	* 1,080 Shares	52,548	54,502
American Funds Washington Mutual R2	* 284 Shares	11,411	10,788
Franklin Mutual European C	1,385 Shares	28,095	26,281
American Funds Capital Inc Bldr R2	* 2,395 Shares	130,727	133,760
Alliancebern High Income C	28,151 Shares	260,885	228,303
Templeton Global Bond C	4,140 Shares	53,573	48,022

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American Funds Money Market R2	* 57,617 Shares	57,617	57,617
American Funds 2015 Target Date Fund R2	* 3,933 Shares	41,956	40,076

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Identify of Issue, Borrower, Lessor or Similar Party	Description of Investments, including Maturity Date, Rate of Interest, Collateral, Par of Maturity Value	Cost	Current Value
American Funds 2020 Target Date Fund R2	* 25,935 Shares	254,898	282,689
American Funds 2025 Target Date Fund R2	* 56,402 Shares	585,182	640,730
American Funds 2030 Target Date Fund R2	* 23,552 Shares	275,059	279,562
American Funds 2035 Target Date Fund R2	* 29,240 Shares	343,571	348,247
American Funds 2040 Target Date Fund R2	* 27,945 Shares	288,204	338,131
American Funds 2045 Target Date Fund R2	* 28,254 Shares	323,128	344,417
American Funds 2050 Target Date Fund R2	* 25,194 Shares	294,195	301,070
American Funds 2055 Target Date Fund R2	* 5,260 Shares	77,618	77,894
Self-directed Mutual Funds:			
Calamos Ground Fund A	Shares **		—
American Funds Capital World Gr&Inc Fund A	480 Shares **		20,788
James Mid Cap Fund	87 Shares **		1,191
American Funds Capital World Gr&Inc Fund F1	768 Shares **		33,312
American Funds Washington Mutual Fund F1	433 Shares		16,604
American Funds Income Fund of America A	Shares **		—
American Funds AMCAP Fund A	Shares **		—
Money Market Funds:			
American Funds Money Market R2	* 45,529 Units	45,529	45,529
Self-directed Money Market Funds:			
TD Ameritrade Money Market Portfolio Class A	Units **		229,826
Participant loans	* Interest rates are 4.25% with various maturities		36,046
			\$6,683,034

* Indicates party-in-interest to the Plan.

** Cost omitted for self directed investments.

SIGNATURE

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the Administrator of the Plan has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

Advanced Emissions Solutions, Inc. Profit Sharing Retirement Plan
(Name of Plan)

Date:

June
28, By: Advanced Emissions Solutions, Inc.
2016

Plan Administrator

By: /s/ L. Heath Sampson
L. Heath Sampson
President, Chief Executive Officer and Treasurer

Exhibit Index

Exhibit No. Description

23.1 Consent of Independent Registered Public Accounting Firm

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