

To: Jackson, Ryan[jackson.ryan@epa.gov]
From: Matt Woodruff
Sent: Fri 10/6/2017 2:30:14 AM
Subject: Kirby Corporation/Stewart and Stevenson Draft Application for Hardship Relief
[S&S tpem-hardship-request-questionnaire.docm](#)
[Attachments.pdf](#)
[Kirby Engine Issue Summary.pdf](#)

Chairman Culberson told me he spoke with you this afternoon about the situation we face with the recent acquisition of Stewart and Stevenson into the Kirby family of companies and asked me to forward to you our proposed application for hardship relief. It is attached, along with a one page summary that explains our situation. We know you have much on your plate and we appreciate your willingness to look into our situation. We simply want to be able to satisfy the contractual obligation we assumed when we purchased S&S. The employees at S&S need the work and our customer needs this equipment. We will greatly appreciate your advice as to how we should proceed from this point forward. We have not yet officially submitted the attached paperwork. If there is anything at all we can provide to help in the evaluation of our request, please let us know.

Thanks again.

Matt Woodruff

Director Public & Government Affairs

Kirby Corporation

55 Waugh Drive, Suite 1000

Houston, TX 77007

Tel: (713)435-1497 Fax: (713)435-1011

matt.woodruff@kirbycorp.com

**STEWART AND STEVENSON
APPLICATION FOR HARDSHIP RELIEF
TRANSITION PROGRAM FOR EQUIPMENT MANUFACTURERS**

ATTACHMENTS FOR ADDITIONAL INFORMATION

Section A1, Question 8A (2 years sales forecast)

UNIT TYPE	UNIT FORECAST	
	2018	2019
<u>FRAC PUMPERS</u>		
USA COMPLIANT 2250 - 3000 HP	100	100
EXPORT 2250 - 3200 HP	16	20
<u>BLENDERS</u>		
USA COMPLIANT	10	10
EXPORT	4	6
<u>HYDRATION AND CHEM ADDS</u>		
USA COMPLIANT	6	6
EXPORT	16	18
<u>DATA VANS</u>		
USA COMPLIANT	8	10
EXPORT	6	8
<u>ACID AND GENERAL SERVICE PUMPERS</u>		
USA COMPLIANT	6	8
EXPORT	12	14
<u>CEMENTERS</u>		
USA COMPLIANT	0	0
EXPORT	15	18
<u>COIL TUBING UNITS</u>		
USA COMPLIANT	4	4
EXPORT	12	16
<u>RAIL CAR MOVERS</u>		
USA COMPLIANT 173 HP	22	24
EXPORT 173 HP	8	10
USA COMPLIANT 194 HP	30	34
EXPORT 194 HP	6	8
TOTALS	281	314

Section A2, Question 3 (TPEM reports)



United States
US Environmental Protection Agency
Office of Transportation and Air Quality

Transition Program for Equipment Manufacturers
Equipment Manufacturer Report

Version 2.4, Last modified: December 2014

Equipment Manufacturer Basic Information

Submission Date: 3/25/2015

Manufacturer Name/Importer: KIRBY CORPORATION
 Contact Name: MORGAN JOHNSON
 Email Address: MORGAN.JOHNSON@KIRBYCORP.COM
 Phone #: 713-435-1311
 Manufacturer Address:
 Address 1: 55 WAUGH DRIVE
 Address 2: SUITE 1000
 City: HOUSTON
 State: TEXAS
 ZIP: 77007
 Country: USA

40 CFR Part: Part 1039

Report Year: 2014

Are you a Small Volume Manufacturer? Yes

Are you a Foreign Equipment Manufacturer? No

Have you been granted additional exemptions for technical or engineering hardship? (S1039.625(m)) No

Have you generated additional TPEM allowances under the provisions of S1039.627 (early Tier 4 engine incentive)? No

Did you use the technical or engineering hardship provisions of S89.102(j)? No

Among your comments, please include: (1) If this report covers more than one company, mention their names; (2) any changes from previous years such as a change in parent company. If you are an importer using a foreign manufacturer's allowance under 1039.626(b) and you listed your name above, please indicate the foreign manufacturer's name and address here.

Comments: THIS REPORT IS FOR THE COMBINED EQUIPMENT PRODUCTION OF TWO COMPANIES UNDER PARENT COMPANY KIRBY CORPORATION. THE TWO EQUIPMENT MANUFACTURERS ARE MARINE SYSTEMS, INC. AND UNITED ENGINES MANUFACTURING.

TPEM Report Data

For Part 89 and Part 1039:

In the table below, report how many units you exempted under TPEM (flex equipment). Please include all power categories in which you participated in the current year. You may also include previous years. For each year and power category report:

- Allowance - Select from the drop-down menu the allowance you are using in the specified power category
- Start and end dates - first and last year you expect to use an allowance in the specified power category; not just the year you are reporting for.
- Exempted Equipment Volume - the number of exempted equipment (flex units)
- Total Prod. Volume - your total US-directed production, both exempted and compliant. This is needed to calculate your percent of production and, therefore, only applies if you are using the percent-of-production allowance.
- % of Production - If you used the percent-of-production allowance, calculate the percentage of equipment with exempted engines vs. Total Production Volume

NOTE: 40 CFR Part MUST be selected above in order to access drop-down options for Power Category and TPEM Type.

Calendar year	Power Category	TPEM Allowance	Start Date (Year)	End Date (Year)	Exempted Equipment Volume	Total Prod. Volume*	% of Production
2014	55kW-130	Small Volume - Single Family	2011	2017	44	44	
2014	130kW-560	Small Volume - Multiple Families	2011	2017	56	62	
2014	kW > 560	Small Volume - Single Family	2011	2017	61	67	

For Part 1039 Only:

Provide the name of each engine manufacturer that produced non-compliant (flex) engines for your exempted equipment.

Engine Manufacturer Name	Engine Manufacturer Address
John Deere Power Systems	3801 West Ridgeway Avenue, Waterloo, IA, 50704
Isuzu Motors America, LLC	46401 Commerce Center Drive, Plymouth, MI, 48189
Caterpillar	501 Southwest Jefferson Avenue, Peoria, IL, 61630
MTU	39525 MacKenzie Drive, Novi, MI 48377

TPEM Summary

For Part 89 and Part 1039:
 The following table summarizes your overall participation in each power category. Report totals for either 40 CFR Part 89 or Part 1039, according to your selection above. Please refer to the regulations for the maximum number of exempted engines allowed in each power category (see "Instructions" tab).

For the power categories in which you are using the percent-of-production allowance, please provide the cumulative totals and percentages for all the units that you have sold throughout your participation in TPEM. Also, include the maximum allowed cumulative percentage, based on the provisions of S89.102 or S1039.625.

For the power categories in which you are using the small volume allowance, please provide the cumulative number of units with exempted engines you have sold throughout your participation in TPEM, and the maximum allowed number of units with exempted engines, based on the provisions of S89.102 or S1039.625.

Power Category	Cumulative Exempted Engine Prod. Vol.	TPEM Type	Start Date (Year)	End Date (Year)	Max. Allowed Cumulative Exempted	Cumulative % of Production	Max. Allowed Cumulative % of Production
55kW-130	342	Small Volume - Single Family	2011	2017	700		
130kW-560	248	Small Volume - Multiple Families	2011	2017	350		
kW > 560	367	Small Volume - Single Family	2011	2017	700		

Paperwork Reduction Act Notice

The public reporting and recordkeeping burden for this collection of information is estimated to average 9 hours per response. Send comments on this Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2022) 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB Number 2060-0287 in any correspondence. Do not send the completed Form 9900-240 to this address.

OMB No. 2060-0287
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 December 31, 2017
 EPA Form 9900-240



United States
US Environmental Protection Agency
Office of Transportation and Air Quality

Transition Program for Equipment Manufacturers
Equipment Manufacturer Report

Version 2.4, Last modified: December 2014

Equipment Manufacturer Basic Information

Submission Date: 2/10/2016

Manufacturer Name/Importer: KIRBY CORPORATION
 Contact Name: MORGAN JOHNSON
 Email Address: MORGAN.JOHNSON@KIRBYCORP.COM
 Phone #: 713-435-1311
 Manufacturer Address:
 Address 1: 55 WAUGH DRIVE
 Address 2: SUITE 1000
 City: HOUSTON
 State: TEXAS
 ZIP: 77007
 Country: USA

40 CFR Part: Part 1039
 Report Year: 2015

Are you a Small Volume Manufacturer? Yes
 Are you a Foreign Equipment Manufacturer? No

Have you been granted additional exemptions for technical or engineering hardship? (§1039.625(m)) No
 Have you generated additional TPEM allowances under the provisions of §1039.627 (early Tier 4 engine incentive)? No
 Did you use the technical or engineering hardship provisions of §89.102(l)? No

Among your comments, please include: (1) if this report covers more than one company, mention their names; (2) any changes from previous years such as a change in parent company. If you are an importer using a foreign manufacturer's allowance under 1039.626(i), and you listed your name above, please indicate the foreign manufacturer's name and address here.

Comments: THIS REPORT IS FOR THE COMBINED EQUIPMENT PRODUCTION OF TWO COMPANIES UNDER PARENT COMPANY KIRBY CORPORATION. THE TWO EQUIPMENT MANUFACTURERS ARE MARINE SYSTEMS, INC. AND UNITED ENGINES MANUFACTURING.

TPEM Report Data

For Part 89 and Part 1039:

In the table below, report how many units you exempted under TPEM (flex equipment). Please include all power categories in which you participated in the current year. You may also include previous years. For each year and power category report:
 - Allowance - Select from the drop-down menu the allowance you are using in the specified power category
 - Start and end dates - first and last year you expect to use an allowance in the specified power category; not just the year you are reporting for.
 - Exempted Equipment Volume - the number of exempted equipment (flex units)
 - Total Prod. Volume - your total US-directed production, both exempted and compliant. This is needed to calculate your percent of production and, therefore, only applies if you are using the percent-of-production allowance.
 - % of Production - If you used the percent-of-production allowance, calculate the percentage of equipment with exempted engines vs. Total Production Volume

NOTE: 40 CFR Part MUST be selected above in order to access drop-down options for Power Category and TPEM Type.

Calendar year	Power Category	TPEM Allowance	Start Date (Year)	End Date (Year)	Exempted Equipment Volume	Total Prod. Volume*	% of Production
2015	55kW-130	Small Volume - Single Family	2011	2017	90	90	
2015	130kW-560	Small Volume - Multiple Families	2011	2017	45	45	
2015	kW > 560	Small Volume - Single Family	2011	2017	48	58	

For Part 1039 Only:

Provide the name of each engine manufacturer that produced non-compliant (flex) engines for your exempted equipment.

Engine Manufacturer Name	Engine Manufacturer Address
John Deere Power Systems	3801 West Ridgeway Avenue, Waterloo, IA, 50704
Isuzu Motors America, LLC	46401 Commerce Center Drive, Plymouth, MI, 48189
Caterpillar	501 Southwest Jefferson Avenue, Peoria, IL, 61630
MTU	39525 MacKenzie Drive, Novi, MI 48377

TPEM Summary

For Part 89 and Part 1039:
 The following table summarizes your overall participation in each power category. Report totals for either 40 CFR Part 89 or Part 1039, according to your selection above. Please refer to the regulations for the maximum number of exempted engines allowed in each power category (see "Instructions" tab).

For the power categories in which you are using the percent-of-production allowance, please provide the cumulative totals and percentages for all the units that you have sold throughout your participation in TPEM. Also, include the maximum allowed cumulative percentage, based on the provisions of §89.102 or §1039.625.

For the power categories in which you are using the small volume allowance, please provide the cumulative number of units with exempted engines you have sold throughout your participation in TPEM, and the maximum allowed number of units with exempted engines, based on the provisions of §89.102 or §1039.625.

Power Category	Cumulative Exempted Engine Prod. Vol.	TPEM Type	Start Date (Year)	End Date (Year)	Max. Allowed Cumulative Exempted	Cumulative % of Production	Max. Allowed Cumulative % of Production
55kW-130	432	Small Volume - Single Family	2011	2017	700		
130kW-560	293	Small Volume - Multiple Families	2011	2017	350		
kW > 560	416	Small Volume - Single Family	2011	2017	700		

Paperwork Reduction Act Notice

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United States
US Environmental Protection Agency
Office of Transportation and Air Quality

Transition Program for Equipment Manufacturers
Equipment Manufacturer Report

Version 2.4, Last modified, December 2014

Equipment Manufacturer Basic Information

Submission Date: 1/17/2017

Manufacturer Name/Importer: KIRBY CORPORATION
 Contact Name: MORGAN JOHNSON
 Email Address: MORGAN.JOHNSON@KIRBYCORP.COM
 Phone #: 713-435-1311
 Manufacturer Address:
 Address 1: 55 WAUGH DRIVE
 Address 2: SUITE 1000
 City: HOUSTON
 State: TEXAS
 ZIP: 77007
 Country: USA

40 CFR Part: Part 1039
 Report Year: 2016

Are you a Small Volume Manufacturer? Yes
 Are you a Foreign Equipment Manufacturer? No

Have you been granted additional exemptions for technical or engineering hardship? (§1039.625(m)) No
 Have you generated additional TPEM allowances under the provisions of §1039.627 (early Tier 4 engine incentive)? No

Did you use the technical or engineering hardship provisions of §89.102(i)? No

Among your comments, please include: (1) If this report covers more than one company, mention their names; (2) any changes from previous years such as a change in parent company. If you are an importer using a foreign manufacturer's allowance under 1039.626(b) and you listed your name above, please indicate the foreign manufacturer's name and address here.

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TPEM Report Data

For Part 89 and Part 1039:

For Part 1039 Only:
Provide the name of each engine manufacturer that produced non-compliant (flex) engines for your exempted equipment.

In the table below, report how many units you exempted under TPEM (flex equipment). Please include all power categories in which you participated in the current year. You may also include previous years. For each year and power category report:
 - Allowance - Select from the drop-down menu the allowance you are using in the specified power category
 - Start and end dates - first and last year you expect to use an allowance in the specified power category; not just the year you are reporting for.
 - Exempted Equipment Volume - the number of exempted equipment (flex units)
 - Total Prod. Volume - your total US-directed production, both exempted and compliant. This is needed to calculate your percent of production and, therefore, only applies if you are using the percent-of-production allowance.
 - % of Production - If you used the percent-of-production allowance, calculate the percentage of equipment with exempted engines vs. Total Production Volume

Engine Manufacturer Name	Engine Manufacturer Address
John Deere Power Systems	3801 West Ridgeway Avenue, Waterloo, IA, 50704
Isuzu Motore Ammerica, LLC	46401 Commerce Center Drive, Plymouth, MI, 48189
Caterpillar	501 Southwest Jefferson Avenue, Peoria, IL, 61630
MTU	39525 MacKenzie Drive, Novi, MI 48377

NOTE: 40 CFR Part MUST be selected above in order to access drop-down options for PowerCategory and TPEM Type.

Calendar year	Power Category	TPEM Allowance	Start Date (Year)	End Date (Year)	Exempted Equipment Volume	Total Prod. Volume*	% of Production
2016	55kW-130	Small Volume - Single Family	2012	2016	1	1	
2016	130kW-560	Small Volume - Multiple Families	2011	2017	0	0	
2016	kW > 560	Small Volume - Single Family	2011	2017	7	7	

TPEM Summary

For Part 89 and Part 1039:
The following table summarizes your overall participation in each power category. Report totals for either 40 CFR Part 89 or Part 1039, according to your selection above. Please refer to the regulations for the maximum number of exempted engines allowed in each power category (see "Instructions" tab).

For the power categories in which you are using the percent-of-production allowance, please provide the cumulative totals and percentages for all the units that you have sold throughout your participation in TPEM. Also, include the maximum allowed cumulative percentage, based on the provisions of §89.102 or §1039.625.

For the power categories in which you are using the small volume allowance, please provide the cumulative number of units with exempted engines you have sold throughout your participation in TPEM, and the maximum allowed number of units with exempted engines, based on the provisions of §89.102 or §1039.625.

Power Category	Cumulative Exempted Engine Prod. Vol.	TPEM Type	Start Date (Year)	End Date (Year)	Max. Allowed Cumulative Exempted	Cumulative % of Production	Max. Allowed Cumulative % of Production
55kW-130	482	Small Volume - Single Family	2012	2016	700		
130kW-560	293	Small Volume - Multiple Families	2011	2017	350		
kW > 560	423	Small Volume - Single Family	2011	2017	700		

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United States
US Environmental Protection Agency
Office of Transportation and Air Quality

Transition Program for Equipment Manufacturers
Equipment Manufacturer Report

Version 2.4, Last modified: December 2014

Equipment Manufacturer Basic Information

Submission Date: 3/10/2015

Manufacturer Name/Importer: Stewart And Stevenson LLC
 Contact Name: Danny Hutchison
 Email Address: d.hutchison@ssas.com
 Phone #: 713-671-8251
 Manufacturer Address:
 Address 1: 1000 Louisiana Street
 Address 2:
 City: Houston
 State: TX
 ZIP: 77008
 Country: USA

40 CFR Part: Part 1039

Report Year: 2014

Are you a Small Volume Manufacturer? Yes

Are you a Foreign Equipment Manufacturer? No

Have you been granted additional exemptions for technical or engineering hardship? §1039.625(m) No

Have you generated additional TPEM allowances under the provisions of §1039.627 (early Tier 4 engine incentive)? Yes

Did you use the technical or engineering hardship provisions of §89.102(i)? No

Among your comments, please include: (1) If this report covers more than one company, mention their names; (2) any changes from previous years such as a change in parent company. If you are an importer using a foreign manufacturer's allowance under 1039.625(b) and you listed your name above, please indicate the foreign manufacturer's name and address here.

Comments:

TPEM Report Data

For Part 89 and Part 1039:

In the table below, report how many units you exempted under TPEM (flex equipment). Please include all power categories in which you participated in the current year. You may also include previous years. For each year and power category report:
 - Allowance - Select from the drop-down menu the allowance you are using in the specified power category.
 - Start and end dates - first and last year you expect to use an allowance in the specified power category; not just the year you are reporting for.
 - Exempted Equipment Volume - the number of exempted equipment (flex units)
 - Total Prod. Volume - your total US-directed production, both exempted and compliant. This is needed to calculate your percent of production and, therefore, only applies if you are using the percent-of-production allowance.
 - % of Production - If you used the percent-of-production allowance, calculate the percentage of equipment with exempted engines vs. Total Production Volume

NOTE: 40 CFR Part MUST be selected above in order to access drop-down options for Power Category and TPEM Type.

Calendar year	Power Category	TPEM Allowance	Start Date (Year)	End Date (Year)	Exempted Equipment Volume	Total Prod. Volume*	% of Production
2014	55kW-130	Small Volume - Multiple Families	2012	2018	6		
2014	130kW-560	Small Volume - Single Family	2011	2017	15		
2014	kW > 560	Small Volume - Single Family	2011	2017	94		

For Part 1039 Only:

Provide the name of each engine manufacturer that produced non-compliant (flex) engines for your exempted equipment.

Engine Manufacturer Name	Engine Manufacturer Address
Deutz USA	3883 Steve Reynolds Blvd Norcross GA 30093
MTU Americas	39525 Mackenzie DR Novi MI 48377

TPEM Summary

For Part 89 and Part 1039:
 The following table summarizes your overall participation in each power category. Report totals for either 40 CFR Part 89 or Part 1039, according to your selection above. Please refer to the regulations for the maximum number of exempted engines allowed in each power category (see "Instructions" tab).

For the power categories in which you are using the percent-of-production allowance, please provide the cumulative totals and percentages for all the units that you have sold throughout your participation in TPEM. Also, include the maximum allowed cumulative percentage, based on the provisions of §89.102 or §1039.625.

For the power categories in which you are using the small volume allowance, please provide the cumulative number of units with exempted engines you have sold throughout your participation in TPEM, and the maximum allowed number of units with exempted engines, based on the provisions of §89.102 or §1039.625.

Power Category	Cumulative Exempted Engine Prod. Vol.	TPEM Type	Start Date (Year)	End Date (Year)	Max. Allowed Cumulative Exempted	Cumulative % of Production	Max. Allowed Cumulative % of Production
55kW-130	6	Small Volume - Multiple Families	2012	2018	525		
130kW-560	188	Small Volume - Single Family	2011	2017	700		
kW > 560	351	Small Volume - Single Family	2011	2017	713		

Paperwork Reduction Act Notice

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US Environmental Protection Agency
Office of Transportation and Air Quality

Transition Program for Equipment Manufacturers
Equipment Manufacturer Report

Version 2.4, Last modified: December 2014

Equipment Manufacturer Basic Information

Submission Date: 3/31/2016

Manufacturer Name/Importer: Stewart And Stevenson LLC
 Contact Name: Danny Hutchison
 Email Address: d.hutchison@ssas.com
 Phone #: 713-871-8251
 Manufacturer Address:
 Address 1: 1000 Louisiana Street
 Address 2:
 City: Houston
 State: TX
 ZIP: 77008
 Country: USA

40 CFR Part: Part 1039

Report Year: 2015

Are you a Small Volume Manufacturer? Yes
 Are you a Foreign Equipment Manufacturer? No

Have you been granted additional exemptions for technical or engineering hardship? (§1039.625(m)) No
 Have you generated additional TPEM allowances under the provisions of §1039.627 (early Tier 4 engine incentive)? No

Did you use the technical or engineering hardship provisions of §89.102(l)? No

Among your comments, please include: (1) If this report covers more than one company, mention their names; (2) any changes from previous years such as a change in parent company. If you are an importer using a foreign manufacturer's allowance under 1039.626(b) and you listed your name above, please indicate the foreign manufacturer's name and address here.

Comments:

TPEM Report Data

For Part 89 and Part 1039:

In the table below, report how many units you exempted under TPEM (flex equipment). Please include all power categories in which you participated in the current year. You may also include previous years. For each year and power category report:
 - Allowance - Select from the drop-down menu the allowance you are using in the specified power category.
 - Start and end dates - first and last year you expect to use an allowance in the specified power category; not just the year you are reporting for.
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 - % of Production - If you used the percent-of-production allowance, calculate the percentage of equipment with exempted engines vs. Total Production Volume.

NOTE: 40 CFR Part MUST be selected above in order to access drop-down options for Power Category and TPEM Type.

Calendar year	Power Category	TPEM Allowance	Start Date (Year)	End Date (Year)	Exempted Equipment Volume	Total Prod. Volume*	% of Production
2015	19.5kW-56	Small Volume - Multiple Families	2012	2018	6		
2015	56.5kW-130	Small Volume - Single Family	2011	2017	10		
2015	130.5kW-560	Small Volume - Single Family	2011	2017	27		
2015	kW > 560	Small Volume - Single Family	2011	2017	12		

For Part 1039 Only:

Provide the name of each engine manufacturer that produced non-compliant (flex) engines for your exempted equipment.

Engine Manufacturer Name	Engine Manufacturer Address
Deutz USA	3883 Steve Reynolds Blvd Norcross GA 30093
MTU Americas	39525 Mackenzie DR, Novi MI 48377

TPEM Summary

For Part 89 and Part 1039:
 The following table summarizes your overall participation in each power category. Report totals for either 40 CFR Part 89 or Part 1039, according to your selection above. Please refer to the regulations for the maximum number of exempted engines allowed in each power category (see "Instructions" tab).

For the power categories in which you are using the percent-of-production allowance, please provide the cumulative totals and percentages for all the units that you have sold throughout your participation in TPEM. Also, include the maximum allowed cumulative percentage, based on the provisions of §89.102 or §1039.625.

For the power categories in which you are using the small volume allowance, please provide the cumulative number of units with exempted engines you have sold throughout your participation in TPEM, and the maximum allowed number of units with exempted engines, based on the provisions of §89.102 or §1039.625.

Power Category	Cumulative Exempted Engine Prod. Vol.	TPEM Type	Start Date (Year)	End Date (Year)	Max. Allowed Cumulative Exempted	Cumulative % of Production	Max. Allowed Cumulative % of Production
19.5kW-56	6	Small Volume - Single Family	2012	2018	525		
56.5kW-130	18	Small Volume - Single Family	2012	2018	525		
130.5kW-560	213	Small Volume - Single Family	2011	2017	766		
kW > 560	363	Small Volume - Single Family	2011	2017	713		

Paperwork Reduction Act Notice

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United States
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**Transition Program for Equipment Manufacturers
Equipment Manufacturer Report**

Version 2.4, Last modified: December 2014

Equipment Manufacturer Basic Information

Submission Date: **3/31/2016**

Manufacturer Name/Importer:
 Contact Name:
 Email Address:
 Phone #:
 Manufacturer Address:
 Address 1:
 Address 2:
 City:
 State:
 ZIP:
 Country:

40 CFR Part:

Report Year:

Are you a Small Volume Manufacturer?

Are you a Foreign Equipment Manufacturer?

Have you been granted additional exemptions for technical or engineering hardship? (§1039.625(m))

Have you generated additional TPEM allowances under the provisions of §1039.627 (early Tier 4 engine incentive)?

Did you use the technical or engineering hardship provisions of §89.102(i)?

Among your comments, please include: (1) if this report covers more than one company, mention their names; (2) any changes from previous years such as a change in parent company. If you are an importer using a foreign manufacturer's allowance under 1039.626(b) and you listed your name above, please indicate the foreign manufacturer's name and address here.

Comments:

TPEM Report Data

For Part 89 and Part 1039:

In the table below, report how many units you exempted under TPEM (flex equipment). Please include all power categories in which you participated in the current year. You may also include previous years. For each year and power category report:
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 - Start and end dates - first and last year you expect to use an allowance in the specified power category; not just the year you are reporting for.
 - Exempted Equipment Volume - the number of exempted equipment (flex units)
 - Total Prod. Volume - your total US-directed production, both exempted and compliant. This is needed to calculate your percent of production and, therefore, only applies if you are using the percent-of-production allowance.
 - % of Production - if you used the percent-of-production allowance, calculate the percentage of equipment with exempted engines vs. Total Production Volume.

NOTE: 40 CFR Part MUST be selected above in order to access drop-down options for Power Category and TPEM Type.

Calendar year	Power Category	TPEM Allowance	Start Date (Year)	End Date (Year)	Exempted Equipment Volume	Total Prod. Volume*	% of Production
2016	19&kW<56	Small Volume - Multiple Families	2012	2018	0		
2016	56&kW<130	Small Volume - Multiple Families	2011	2017	12		
2016	130&kW<560	Small Volume - Single Family	2011	2017	2		
2016	kW > 560	Small Volume - Single Family	2011	2017	0		

For Part 1039 Only:

Provide the name of each engine manufacturer that produced non-compliant (flex) engines for your exempted equipment

Engine Manufacturer Name	Engine Manufacturer Address
Deutz USA	3883 Steve Reynolds Blvd Norcross GA 30093
MTU Americas	39525 Mackenzie DR, Novi MI 48377
Cummins	Columbus, Indiana 47202

TPEM Summary

For Part 89 and Part 1039:
 The following table summarizes your overall participation in each power category. Report totals for either 40 CFR Part 89 or Part 1039, according to your selection above. Please refer to the regulations for the maximum number of exempted engines allowed in each power category (see "Instructions" tab).

For the power categories in which you are using the percent-of-production allowance, please provide the cumulative totals and percentages for all the units that you have sold throughout your participation in TPEM. Also, include the maximum allowed cumulative percentage, based on the provisions of §89.102 or §1039.625.

For the power categories in which you are using the small volume allowance, please provide the cumulative number of units with exempted engines you have sold throughout your participation in TPEM, and the maximum allowed number of units with exempted engines, based on the provisions of §89.102 or §1039.625.

Power Category	Cumulative Exempted Engine Prod. Vol.	TPEM Type	Start Date (Year)	End Date (Year)	Max. Allowed Cumulative Exempted	Cumulative % of Production	Max. Allowed Cumulative % of Production
19&kW<56	6	Small Volume - Single Family	2012	2018	525		
56&kW<130	30	Small Volume - Multiple Families	2012	2018	525		
130&kW<560	215	Small Volume - Single Family	2011	2017	766		
kW > 560	363	Small Volume - Single Family	2011	2017	713		

Paperwork Reduction Act Notice

The public reporting and recordkeeping burden for this collection of information is estimated to average 9 hours per response. Send comments on this Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2022), 1203 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB Number 2060-0287 in any correspondence. Do not send the completed Form 9900-240 to this address.

OMB No. 2060-0287
 Approval Expires on
 December 31, 2017
 EPA Form 9900-240

Section A2, Question 4.b.ii (manufacturer and engine family names for TPEM equipment)

John Deere AJDXL09.0901
 AJDXL13.5900
 EJDXL13.5146

MTU AMDDL95.4XTR

Detroit Diesel CDDXL14.0VLD
 DDDXL14.0VLD
 EDDXL14.0VLD
 FDDXL14.0VLD
 GDDXL14.0VLD

Caterpillar ACPXL18.1ESK
 ECPXL78.1NZS
 FCPXL78.1NZS
 GCPXL78.1NZS

Isuzu CSZXL03.0MXA
 DSZXL03.0MXA
 ESZXL03.0MXA

Section A6, Question 4.c (compliant engine family names)


Deutz ADZXL06.1057
 ADZXL07.1053

Caterpillar CCPXL32.0HXA
 DCPXL32.0HXF
 ECPXL32.0HXF
 FCPXL32.0HXF
 GCPXL32.0HXF
 HCPXL32.0HXF

Cummins ECEXL06.7AAH
 ECEXL06.7AAK

Detroit Diesel ADDXL14.0VLD

DRAFT



United States
Environmental Protection Agency
Office of Transportation and Air Quality

Transition Program for Equipment Manufacturers
HARDSHIP RELIEF APPLICATION QUESTIONNAIRE

EPA Form Number 5900-In Process Version 1.0; Last Modified: August 2015

Dear Applicant,

This document is a questionnaire you must answer to apply for hardship relief in the context of the Transition Program for Equipment Manufacturers (TPEM). Please download this questionnaire and answer the questions in the order presented retaining the titling for each section and numbering of your answers.

If you are applying for technical hardship relief under 40 CFR 1039.625(m), you only need to complete section A. If you are applying for economic hardship relief under 40 CFR 1039.630 and 40 CFR 1068.255, complete both Sections A and B.

All responses should be fully supported. Please submit any available written evidence such as purchase order's, letters, emails, and notes. All supporting information and documentation must be submitted with the completed application. Where the contact information to verify a particular claim differs from the primary contact, you should supply full contact information for each claim.

Your application must be approved and signed by an authorized representative of your company, typically the chief executive officer, president or owner. Please note that, per 40 CFR 1068.25, "you are responsible for statements and information in [this] application... If you provide statements or information to someone for submission to EPA, you are responsible for these statements and information as if you had submitted them to EPA yourself. For example, knowingly submitting false information to someone else for inclusion in an application for certification would be deemed to be a submission of false information to the U.S. government in violation of 18 U.S.C. 1001".

Please note that a complete application must include:

1. The completed Prescreening Questionnaire,
2. This Application, signed
3. Any supporting documentation, and
4. Your company's last TPEM annual report.

The public reporting and recordkeeping burden for this collection of information is estimated to average 30 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB Number 2060-0369 in any correspondence. Do not send the completed Form 5900-(In Process) to this address.

OMB No. 2060-0287
Approval Expires on
8/31/2018
EPA Form 5900-In Process

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DRAFT

APPLICANT INFORMATION

This application is for:

Technical Hardship Relief [40 CFR 1039.625(m)]

Date of Application: 9/29/2017

Manufacturer Name: **STEWART AND STEVENSON MANUFACTURING, LLC**

Manufacturer Contact Name: Josh Weed

Manufacturer E-mail Address: j.weed@ssss.com

Manufacturer Phone Number: 713-751-2717

Manufacturer Address: 55 Waugh Drive
Suite 1000
Houston, TX 77007

If application is submitted by 3rd Party, please provide:

3rd Party Contact Name _____

3rd Party E-mail Address: _____

3rd Party Phone Number: _____

3rd Party Address: _____

Power Category(ies) you are seeking relief for: kW>560 [Click to choose a power category](#)

SECTION A – Technical or Engineering Information

Section A1. Company Overview

1. State that you have completed the preliminary screening and your company is in compliance with the TPEM program. Attach and submit the completed prescreening document with this request.

We have completed the preliminary screening tool. Stewart and Stevenson, as well as its parent company and parent company's other subsidiaries, are in compliance with the TPEM program.

2. Supply full contact information for the company representative responsible for this request.

Josh Weed

Stewart and Stevenson

55 Waugh Drive, Suite 1000

Houston, TX 77007

713-751-2717

j.weed@ssss.com

3. Supply full contact information for the submitter if different from above.

Same as above

4. Fully describe your company including but not limited to:

- a. Number of employees

Stewart and Stevenson - approximately 2,000

- b. States and/or countries operating in

Arkansas, Arizona, Colorado, Connecticut, Florida, Kansas, Louisiana, Massachusetts, New Mexico, New York, Texas, Wyoming, Russia, Colombia, China

- c. Estimated company value and annual revenue for past 5 years

Stewart and Stevenson annual revenue:

2012 \$444,861,328

2013 \$219,255,293

2014 \$258,291,904

2015 \$117,707,533

2016 \$47,887,032

Stewart and Stevenson was purchased by Kirby Corporation for \$702 million on September 13, 2017.

- d. Fully describe all products you manufacture and the applicable industry sector for each product.

Stewart & Stevenson manufactures power generation equipment for various applications, hydraulic fracturing equipment for the land based oil and gas industry, and pump packages for

the marine and marine exploration industries.

- e. Fully describe all equipment you manufacture incorporating Non-road Compression Ignition (NRCI) engines.

All equipment described in the question above are powered by non-road compression ignition engines.

- f. List all engines by manufacturer you currently or in the past have incorporated into your equipment.

MTU 12V2000	>560kW
MTU 12V4000S83	>560kW
MTU 12V4000T94	>560kW
CAT 3516C	>560kW (export only)

- g. Fully describe the equipment above that is the subject of this hardship application.
The equipment requiring hardship relief is a fleet of 40 hydraulic fracturing units under contract and designed to be built with Tier 2 MTU 12V4000 engines. The units are pressure pumping equipment which are used to stimulate production after an oil and gas well has been established. These units were designed and engineered starting in December 2016, and are being built prior to the expiration of the TPEM program to meet the customer’s immediate demand as well to be compatible with the series of 119 units with compatible engine equipment previously purchased by this customer.

- 5. To the best of your ability, list the top three competitors for each model of equipment you produce.

- a. Provide your market share for each model produced, and an estimate of your competitors’ respective market share.

S&S controls approximately 17% of the market for trailer-mounted fracturing units. Its competitors control 74%, and customers which also produce their own equipment control about 9%. Stewart and Stevenson considers its top three competitors to be National Oilwell Varco (NOV), AF Global (NRG), and Modern USA (Dragon).

- b. Do you supply unique or niche equipment that may cause a shortage in the market (i.e., no other competitor builds equipment to serve this particular function)?

The equipment produced by Stewart and Stevenson is comparable in general function to other hydraulic fracturing equipment available on the market. However, the equipment is custom-designed and engineered to meet specific geological and site conditions. As a result, the equipment represented in this request is unique in that it was designed to meet the customer’s specific requirements for the geographic area in which the equipment will be used. There is no other equipment that would be available to meet the customer’s requirements by or even in close proximity to the required delivery date as it would take approximately [6-12] months to design, engineer and build an alternative.

6. Is your company the Equipment Manufacturer?

Yes, Stewart and Stevenson Manufacturing LLC is the equipment manufacturer for this hardship request.

- a. State that you have read and understand 40 CFR 1039.625(a)
Stewart and Stevenson has read and understands 40 CFR 1039.625(a).
- b. Do you have the primary responsibility for designing and manufacturing the equipment? If you import any pieces of your equipment, fully describe to what extent the equipment is imported.
Stewart and Stevenson holds the primary responsibility for designing and manufacturing the equipment. It works closely with its customers to design and engineer customized and specialized equipment that meets specific well design and pressure criteria. None of the equipment is imported.
- c. Do you install some engines in the equipment? If so, do you receive the engines from your supplier as a power pack (i.e, a modular powertrain including the engine, radiator, transmission, or other supporting components) or with no supporting components installed?
Yes, we install engines in the equipment. Engines and the other equipment components are received separately. The engines are not pre-assembled into power packs or modular skid units with main components already installed.
- d. Provide a full description of the designing and manufacturing activities devoted to each piece of equipment.
Equipment is designed and engineered to meet the customer's specific well production needs. S&S first meets with its customer to discuss the specific application for the equipment. Engineering representatives from both the customer and S&S meet to detail geologic aspects related to the performance demands of the equipment, component reliability and compatibility, and operation and maintenance requirements. The design and engineering phase requires approximately 6 months. S&S then develops an initial proposal for the equipment, designed to meet the specifications identified with the customer. The customer may make changes based upon any new knowledge or performance criteria that may change the design. Once the design and initial engineering are complete, parts and materials are ordered. Equipment is typically ordered in fleet quantity, to keep maintenance and future part ordering consistent. For these particular contracts, the customer has previously ordered a total of 119 identical units, specifically to keep the maintenance and operations consistent. S&S then begins manufacturing of the equipment by installing the components on the chassis. Once all chassis have been completed, they are individually function tested to ensure no major issues occurred during assembly. Once confirmed that the equipment operates properly, final equipment finishing, including painting and control system testing, is completed. The units may also be performance tested depending upon customer requirements. Typically, the process from design through completed manufacturing takes about one year. Engineering, component selection, and product use are all developed by

Stewart and Stevenson.

7. Provide complete sales data for all models you have manufactured over the past 5 years:
 - a. List sales data on a model-by-model basis
 - 2012 145 units of the trailer mounted hydraulic fracturing unit using Tier 2 engines**
 - 2013 21 units of the trailer mounted hydraulic fracturing unit using Tier 2 engines**
 - 2014 94 units of the trailer mounted hydraulic fracturing unit using Tier 2 engines**
 - 2015 12 units of the trailer mounted hydraulic fracturing unit using Tier 2 engines**
 - 2016 0 units trailer mounted hydraulic fracturing units were sold in 2016.**
 - b. List any known causes of increased or decreased sales, for example: natural disasters, recessions, emission standard changes, customer preference for established engine technology, customer refusal to purchase technology, etc.

The market experienced a downturn due to decreased oil prices in late 2014. The equipment S&S produces is primarily for the oil and gas industry, and with fewer wells being explored and produced, the demand for S&S's equipment was sharply curtailed. Further price and market pressure reduced demand, and thus equipment sales, through 2016 to significantly lower levels than in the previous 5 years.
8. Provide sales forecasts for all models you intend to manufacture for next 2 years
 - a. Explain the basis for any significant increases or decreases in sales projections

See attachment for sales forecast. While the market for oil and gas well stimulation and development equipment has recently experienced a recovery compared to prior years, there remains significant instability that will impact sales for the next few years. The price of oil, and market confidence in it, will continue to determine the direction of market stability.
9. State whether you manufacture any engines

Stewart and Stevenson is not an engine manufacturer.

 - a. If you are an engine manufacturer, state whether you manufacture any engine installed in any of your equipment models
10. The TPEM program permits one allowance per parent company per power category. Completely describe the ownership chain of your company up to the final parent/entity and back down to all subsidiaries of the parent company. Include all third party and licensee manufacturing agreements.

Only one allowance for the highest parent company in the organization is being sought. As of September 13, 2017, Stewart and Stevenson's parent company is Kirby Corporation (Kirby). Kirby is also the parent company of United Engines, UE Manufacturing, and Marine Systems. Kirby is the highest parent company in the organization. Stewart and Stevenson will be the only entity which uses any hardship relief granted, as this request seeks only to allow the completion of existing orders that cannot be reengineered for completion within the required timeframe to use the engine family in this power category already produced by other Kirby affiliates in calendar year 2017.

a. Any relief will be granted to the parent of any and all subsidiaries. Please outline in complete, concise detail the corporate structure of the parent and include any and all subsidiaries or partial ownership in other equipment manufacturer companies by the parent company. **Kirby Corporation is the highest level parent company for the organization. United Holdings, Kirby Engine Systems, and Stewart and Stevenson are all equal level subsidiary entities under the Kirby Corporation parent. Each of these has subsidiaries of its own, which participate in the TPEM. United Holdings is the parent for United Engines and UE Manufacturing. Kirby Engine Systems is the parent company of Marine Systems and Engine Systems. Stewart Stevenson's subsidiary is Stewart and Stevenson Manufacturing. Again, United Engines, UE Manufacturing, Marine Systems, and Stewart and Stevenson Manufacturing are the only entities that participate in TPEM.**

b. Is this hardship due to or caused by a recent merger or acquisition of another company? List all mergers and acquisitions of any equipment manufacturing business entered into by the parent or any subsidiary in the last five years.

No, this hardship request is not based on an acquisition. Stewart and Stevenson was acquired by Kirby Corporation on September 13, 2017. Had the acquisition occurred prior to the near-end of the TPEM, Stewart and Stevenson would be able to work with its customer to re-engineer the units for use with compliant engines. However, because there are only three months remaining in the entire TPEM period for the >560kW power category, Stewart and Stevenson cannot re-engineer its equipment design to use the engine family that has been used by the other Kirby subsidiaries. Nor can the equipment be re-engineered in a timely manner to use Tier 4 engines. Tier 4 engines will not physically fit in the unit even if such engines could be obtained. Further, Tier 4 engines are not readily available from the manufacturer. Moreover, the Tier 2 engine Kirby's other subsidiary uses is not an appropriate choice for the geography in which the units are intended to be used. Thus, a complete re-engineering of the equipment would need to be completed, which would take up to a year. This would be far outside of the delivery timeframe for the equipment would cause Stewart and Stevenson to forfeit on its obligations to its customer and the customer to cancel the contract.

c. State if you are the Parent, a Subsidiary, Licensee, Agent or Importer operating under the authority of the parent. Attach and submit full documentation of your status.

Stewart and Stevenson is a subsidiary of Kirby Corporation, which is its parent company. Stewart and Stevenson is the parent company of Stewart Stevenson Manufacturing LLC.

Section A2. TPEM Participation

1. Provide the date on which your company entered or will enter the TPEM program using exempted engines

Stewart and Stevenson entered the TPEM program on January 1, 2011.

2. Provide the date of the last day of authorized TPEM participation. Hardship may not be granted

outside the specified 7 year period (see 40 CFR 1039.625(m)).

December 31, 2017

3. Has your company properly filed TPEM reports for each year of participation? Submit copies of all reports with this application
Yes, see reports for both Stewart and Stevenson and Kirby Corporation in Attachment A.
4. Include in your application the complete and total TPEM usage by the parent and all its subsidiaries. Each TPEM allowance is granted by power category.

- a. Going back to the beginning of your participation in the TPEM program list each power category in which you have consumed TPEM allowances.

19-56kW

56-130kW

130-560kW

>560kW

- b. State the number of allowances per power category the parent and its subsidiaries are using and whether each one is Percent of Production (PoP) or Small Volume Manufacturer (SVM)

19-56kW 525 SVM

56-130kW 700 SVM

130-560kW 350 SVM

>560kW 700 SVM

- i. List each model of equipment in each power category

19-56kW Mobile generator set

56-130kW Rail mover, agricultural pumps

130-560kW Rail mover, twin pumper, mobile generator set, blenders, barge pump

>560kW Frac trailers

- ii. Include a list of all engines by EPA Engine Family name and manufacturer that you have installed in every model produced by the parent during the past five years.

See attachment

- c. List planned Tier 4 Final compliant engines by 12-character EPA engine family name (e.g., DCEXL06.7XYZ) for installation in each model above or indicate if you intend to cease production of this particular equipment model.

The trailer mounted hydraulic fracturing model which is designed for the Tier 2 MTU 12V4000 engine will be discontinued. The Tier 4 compliant model uses a completely different cooling package, control system, and frame/mounting structure and is considered a different model.

- i. Are these planned Tier 4 Final engines currently certified and available?

MTU has released the Tier 4 Final compliant version of the 12V4000 engine. However, engine availability is not expected until late first quarter 2018.

5. State on what date you expect to exhaust your current TPEM allowance. Your company must exhaust all TPEM allowances before using any additional allowances granted as hardship relief. You must request hardship relief before exceeding your TPEM allowance. Please plan for at least a 90 day review of any hardship application.
The delivery date commitment for these units is November 22, 2017. December 31, 2017 is the last date on which Stewart and Stevenson, or any other Kirby Corporation subsidiary, will be able to use an allowance under TPEM in the >560kW power category. Kirby Corporation's parent company reporting is well below the maximum allowable usage of allowances for the >560kW power category, for which this hardship request is submitted. As of January 1, 2017 total allowances used for the >560kW power category by the Kirby parent company were 423 of 700. Approximately 30 additional units in this power category have been produced under the Kirby parent company in 2017.
6. Identify and state any exceedances of TPEM limits on the number of engines used in aggregate by the parent company and all of its subsidiaries and licensees for each year of the TPEM program.
No exceedances have occurred. Kirby Corporation and all of its subsidiaries are in compliance with the limits of the TPEM program.
7. Identify and state any expected exceedances of TPEM limits on the number of engines at conclusion of participation.
This hardship request is submitted to prevent an exceedance in the >560kW power category using the multi-family option, since Stewart and Stevenson's pre-existing design work and contractual commitment require use of a different single engine family than the single engine family Kirby's other subsidiaries had already used in 2017. Without hardship relief, the final contracts in Stewart and Stevenson's production for year 2017 will cause the compliance option for Kirby Corporation to change from single family small volume allowance to multi family small volume allowance. Kirby's annual production in 2011 (199 engines) and the cumulative production for the life of the program (423 as of 1/1/2017) are such that use of the multi family option causes an exceedance.

Section A3. Equipment Subject to Hardship Request

1. From Section 1, 4(g) fully describe by model the equipment above that is the subject of this hardship application.
 - a. Model identifier and description of each piece of equipment.
The equipment model subject to this hardship request is the Tier 2 trailer mounted hydraulic fracturing unit.
 - b. Include by EPA Engine Family name every engine by any engine manufacturer installed into this equipment in the past five years.

All units for this model were produced using the MTU 12V4000S83 Tier 2 engine, which has an EPA engine family name AMDDL95.4XTR.

- c. List power ratings assigned to each model in the past five years.

The power rating for the unit is 2500hp.

- d. List production volumes for each model for past five years.

2012 145 units

2013 21 units

2014 94 units

2015 12 units

2016 0 units were produced in 2016.

- e. For each piece of equipment, list whether it is available with multiple engine options. For example, do you offer the equipment with an optional Kubota, Cummins, CAT, Deere, or other engine?

No, this equipment is not available with multiple engine options, nor can it be designed to accommodate multiple engine options. The trailer mounted hydraulic fracturing equipment is limited to a specific engine, and if an engine change is required, major component changes must be made, as well as engineering specifications for the frame, cooling, and control systems.

2. Is this the identical equipment you were manufacturing during your prior TPEM participation?

Yes

3. Are you requesting hardship relief for a model newly introduced into the market, a model that you intend to continue to produce using a Tier 4 compliant engine, or a model that will be phased out of production?

The equipment subject to this hardship request will be discontinued at the close of the TPEM program. As previously described, the equipment in question cannot simply change to a Tier 4 engine without completely re-engineering the equipment with a new design.

4. From Section 1, 7(a) provide the sales history for each equipment model for which you are requesting hardship relief for the past five years.

- a. State any anticipated increase in sales if hardship is granted.

No increase in sales will occur if hardship is granted. Sales have already been completed for the remainder of the 2017 year and through to the expiration of the TPEM program.

Section A4. Basis of Hardship request

1. State in full, complete, concise detail your original 7 year plan under 40 CFR 1039 to become fully compliant by the expiration date of your TPEM participation.

Any planning prior to this request could not have anticipated this particular scenario. Stewart and

Stevenson planned to work with customers and engine manufacturers throughout the TPEM period such that the necessary design and equipment availability issues would be addressed before the expiration of TPEM allowances.

- a. A major component of the request is establishing a timeline that can be easily understood. **Stewart and Stevenson met with its customer in December 2016 to begin planning and engineering the equipment subject to this request. Engineering representatives of S&S and its customer met and worked over the next 6 months to design the units. Final specifications for the units were completed May 26, 2017. A commitment to produce 20 units was reached via contract June 5, 2017 followed by a contractual commitment at the request of the customer for an additional 20 units on September 11, 2017.**
- b. On a model-by-model basis, supply two single-line GANNT Charts to provide a visual timeline
 - i. Top line to show original planned participation in TPEM which will usually encompass a nine year timeline including activities leading up to production
 - ii. Bottom line to show actual production schedule with readily-identifiable delays (i.e., circumstances clearly outside your control) inserted showing the “pushing out” of production schedule.

These items are unrelated to Stewart and Stevenson’s request in that there is no delay in parts availability for the units subject to this request.

- c. The request needs to show that absent one or more unanticipated circumstances that were clearly beyond your control, prudent business practices would have resulted in meeting the regulatory requirement.

The request is based on the fact that at the time Stewart and Stevenson initiated work with its customer (9 months prior to acquisition), the potential for sudden unavailability to Stewart and Stevenson of TPEM allowances using the Tier 2 engine model required by the design and engineering specifications for the units could not be conceived. Even once a potential change in parent company became a possibility after the design work began, Stewart and Stevenson remained a unique and separate entity obligated to adhere to its own compliance limitations under TPEM. Further, as a potential new parent company, it would have been unlawful for Kirby Corporation to attempt to interfere in the operation of or financial status of a company it seeks to purchase. As such, a Non-Disclosure Agreement was in place between Kirby Corporation and Stewart and Stevenson that prohibited the use of any information obtained through due diligence to be used by Kirby to influence or take advantage of Stewart and Stevenson. Each party was unique and separate up to the closing of the acquisition, and thus Kirby could not control the potential for a conflict to occur in the TPEM allowance usage of its pending subsidiary, nor could Stewart and Stevenson have known what limitations Kirby’s TPEM participation might present to existing production.

2. State when and how you became aware of any issues affecting your efforts to achieve compliance. Attach and submit full documentation.

Stewart and Stevenson was not aware of potential conflicts in compliance until September 14, 2017.

3. State the Extreme and Unusual Circumstances you are experiencing that prevent you from bringing the equipment listed in Section 3, 1 into compliance.
S&S has committed to its customer to produce 40 hydraulic fracturing units by year's end 2017. Timing for the contract and for the TPEM program expiration do not allow for re-engineering the units to use Tier 4 engines, as these equipment require nearly 2,000 man-hours of engineering time to develop. The flex engines which are currently compliant with the parent company reporting are not appropriate for the geography in which the customer will use the equipment.
4. The request should thoroughly document when delays occurred, why they occurred, how the issue was resolved, and the current state of events.
 - a. For each delay include full contact information at source of delay for verification.
This request is unrelated to component or engine delivery delay.
5. State how these circumstances are completely outside your control. (Note: mergers and acquisitions are not outside the control of the company)
As described above, Stewart and Stevenson could not have known that TPEM allowance conflicts would occur when it committed to produce equipment for its customer. Further, as still unique and separate companies, Stewart and Stevenson was under no obligation to first confirm that such conflicts would not occur prior to the closing of the acquisition. To reiterate, Kirby could not lawfully influence Stewart and Stevenson's pursuit of business prior to the acquisition. This hardship request does not seek to obtain flexibility for future sales or for allowance usage after the program expires. Instead, Stewart and Stevenson seeks only to confirm that it may proceed with manufacturing equipment it was already under contract to produce prior to the acquisition by Kirby Corporation.
6. Compare the design processes of the equipment model for which you need additional exemptions and that for other models for which you do not need additional exemptions. Explain the technical differences that justify your request.
Design processes across all equipment are the same. Differences in design processes are not a basis for this request.
7. State all steps taken to minimize the scope of your request
 - a. When exactly did your company learn about the additional delay for Tier 4 prototypes? If this is the basis for your request, please document well
The scope of this request is limited by time remaining under the TPEM program. Stewart and Stevenson cannot produce equipment from any additional sales prior to the expiration of the program due to production capability.
8. Provide the following information about prototype engines for each equipment model:
 - a. List when the compliant prototype engine was ordered
 - b. Dates of promised delivery of compliant prototype
 - c. When the prototype engine was received

d. When the prototype equipment was built
Prototype engines are not a relevant element of this hardship request.

9. Provide the following information about compliant production engine for each equipment model
- a. State if compliant engine is certified, in production, and available
There is not a Tier 4 version of the same engine that is readily available. MTU 12V4000 T95 is the Tier 4 compliant version, and the earliest delivery is first quarter 2018.
 - b. Dates of promised delivery of compliant production engines
MTU has indicated that Tier 4 engines will not be available until first quarter 2018.
 - c. Dates of actual delivery of compliant production engines
Not yet known.
 - d. Estimated start of production for the compliant Tier 4 equipment
The compliant Tier 4 engine has only been produced in extremely limited numbers (estimated less than 5 produced). Routine availability is not expected until first quarter 2018.
 - e. Number of TPEM allowances (specified in units, not percentage) requested for the specific piece of equipment
Stewart and Stevenson requests up to 40 TPEM allowances using Tier 2 MTU 12V4000 engines.

Section A5. Alternative Compliant Engine

1. State all alternative engine suppliers you have considered:
- a. Please provide the names of the alternative engine manufacturers contacted and the dates they were contacted
Alternative engines are not an option, because the unit has to be completely redesigned to use a different engine. A Tier 4 12V4000 engine is not available, and when it does become available, it will not physically fit into the unit. The existing engine used by Kirby Corporation's other subsidiaries in 2017 for the single family option, CAT 3512C, will not only not fit without significantly re-engineering components and frame design, its performance characteristics are not suited to the geology where these units are intended to be used. The equipment is not flexible in design to accept multiple engine models.
 - b. List all alternative engines considered by EPA Engine Family name
No alternative engines are available for this equipment model. As previously described, the units were carefully designed over a 6 month period with the customer. The equipment model is limited to a specific engine, and any change in engine requires such a significant change in mounting design, component coupling, cooling system package, and control system that equipment using a different engine would be designed as a completely separate equipment model.

- c. Describe the reason why any engines were not selected for development and explain fully why these certified engines are not compatible and cannot be used.

Stewart and Stevenson designed its equipment for the orders using the Tier 2 MTU 12V4000 engine as part of its then legally available TPEM allowance. Because S&S has used the single family small volume option, it does not have the flexibility to consider any other Tier 2 engine that might have been available that would not create a conflict, even though S&S had no way of knowing what those engines might be. Further, a Tier 4 engine does not fit into this equipment model, is not available, and is not a consideration as an alternative. From the customer's perspective, they have purchased 119 of other units using the Tier 2 MTU 12V4000 engine. The maintenance, parts replacement, mechanic and operations personnel training, and other considerations are all uniform across the customer's entire operation. Units powered by different engines are not technically feasible in that they would double the support infrastructure needed to operate and maintain the equipment.

- i. Customer preference may not be considered in a hardship application
 - ii. Fully explain any engineering difficulties in incorporating any alternative engine
 - iii. Submit full documentation of any timeline impacts for incorporating alternative engines
- d. Please provide written documentation of this consideration, such as a copy of an email or letter from each engine manufacturer.

2. Are the engines you normally incorporate uniquely designed and manufactured for your equipment (e.g., unique bell-housing, PTO, etc.) or are these mass production engines?

The engines themselves are mass produced. The equipment the engines are installed into, however are uniquely designed to accept only a specific engine make and model.

Section A6. Efforts to Minimize the Relief Needed

1. Provide the number of new employees hired to overcome the unanticipated impacts and used to minimize your need for relief. Explain the role of these employees (i.e., engineers, drafters, etc.)
- No employees were hired, as their hiring would not minimize or impact the contracts such that Tier 4 engines could be used instead of Tier 2.**

2. Number of technical staff such as engineers and drafters you employ and number of technical staff assigned to the equipment models that are the subject of this request.

Stewart and Stevenson Manufacturing employees 8 people within its engineering groups. The S&S parent company employs 13 people total, including the 8 people within the manufacturing group.

3. List all equipment models you've transitioned to using compliant engines from an alternative engine supplier.

Stewart and Stevenson is transitioning to equipment models that provide the same function, but that are designed to accept Tier 4 compliant engines. The difference between Tier 4 compliant models and

the models produced under TPEM include layout and physical dimensions, cooling packages, control modules, and the coupling between the engine and the pump.

4. List all equipment models you currently manufacture with compliant engines.
 - a. Supply date compliance achieved.
 - b. Supply EPA Engine Family name for each compliant model.
 - c. Have you continued to produce this equipment with exempted engines after the date Tier 4 engines could be introduced into the product?

Stewart and Stevenson builds rail car movers, stimulation blenders, stimulation hydration units, acid pumpers, stimulation data vans, stimulation chemical additive units, and nitrogen pump and vaporizing units using compliant engines. These equipment were at one time built using exempted engines, but they are not currently offered with either an exempted engine or a compliant engine. These equipment are currently built using compliant engines only. See attachment for engine family names.

Section A7. Scope of Hardship Request

1. Hardship relief is granted on a model-specific basis. Submit your request in that fashion.

This request is limited to the 40 hydraulic fracturing equipment units. These units represent a single equipment model, which was specifically designed for the individual customer's requirements.
2. The scope of the request - please explain in detail how you arrived at the number (engine quantity) of your request.

Stewart and Stevenson's scope is established in a contract with its customer.
3. List by EPA Engine Family name identifier the engines this hardship request will authorize
 - a. State what Tier and by EPA Engine Family name identifier the hardship engines you will incorporate

The engines are Tier 2 MTU 12V4000 engines. The EPA engine family name is AMDDL95.4XTR.
4. State your request for additional allowances in terms of the minimum volume necessary to span the period of hardship.

Stewart and Stevenson needs up to 40 Tier 2 MTU 12V4000S83 engines to complete its contract obligations with its customer.
5. Do not include in your request any expected increase in sales, hardship will not be approved to increase any market share or sales increase.

This request is not reflective of a speculative sales effort or increase in market share. S&S seeks only to fill existing customer contracts which were already signed and in place at the time the conflict in single engine family allowances became an issue.

Section A8. Effect of Approval or Denial of Hardship

1. Please explain the business measures your company would employ if your application were to be denied (e.g., idle production line, deploy unique financial measures, lay off employees, etc.).
Stewart and Stevenson would suffer a loss of \$43 million in revenue and an almost certain loss of an existing customer. Given that the equipment being requested encompasses an entire operational fleet, S&S would also suffer the additional lost revenue from maintaining and servicing the equipment. The orders represent S&S's intended work for 220 employees, some of whom will likely have to be laid off if the work is suddenly unavailable.
2. Please explain the potential for your company to reduce the impact of a denial by exporting products or otherwise maintaining production of other products.
The equipment being produced cannot be sold for export, since it was designed specifically for an application unique to the customer's well stimulation requirements.

Section A9. Other Relevant Information

1. Include any other information which may be relevant to your application.

It is important to consider that the engines had already been purchased from the manufacturer and were in inventory at the time the TPPEM allowance conflict was created and discovered by Stewart and Stevenson. The engines and equipment do not reflect new or potential sales or increased manufacturing opportunity. Further, EPA's recent guidance approving the relabeling of excess flex engines to replacement engines means that these engines, if not installed into the equipment, will be relabeled and introduced into commerce as replacement engines under 1068.240. As a result, although the engines have not yet been introduced into commerce, they will be introduced even if the request for hardship is denied. Denial of this request for hardship will not improve air quality, nor will it curtail the number of Tier 2 engines in use. However, if the application is accepted, there is a potential small benefit to the airshed in that these engines will be installed in brand new equipment instead of replacing engines in older equipment. Although the engines have the same emission limit, the newer, more efficient components will place a comparatively reduced load on the engine to accomplish the same work. Actual emissions from the engine due to increased efficiency of the equipment are expected to be lower for new equipment than for older equipment.

SECTION B – Economic Hardship Relief (1039.630 & 1068.255)

After reading 40 CFR Parts 1039.630 and 1068.255, please provide concise and clear answers to the following questions. Some regulatory requirements have already been addressed in the Technical Section (Section A of this document), and are therefore not repeated in this section. However, some questions are similar to those in Section A. Please note that in Section A, we seek answers from a technical perspective, if one exists. In this Section B, we seek answers based on your company's financial situation.

Section B1. Overview & Unusual circumstances

1. Briefly describe why your company needs economic hardship relief and the unusual circumstances that brought about your company's impending hardship. In other words, explain what's going on and why. Please submit any documentation you deem relevant to prove your situation, in addition to the documentation listed below.
 - a. State whether there was any breach of contract by a supplier.
 - b. The amount of time you had to redesign your equipment to accommodate complying products.
 - c. Whether industry trends are affecting your sales.
2. Explain your company's role, if any, in creating the impending hardship. To receive hardship relief, your company must not be at fault for the impending violation/hardship.
3. Describe your efforts, if you haven't elsewhere in this application, to find and assess complying engines from other manufacturers that could be used in your equipment.
4. Explain any other efforts you have undertaken to prevent or minimize the economic impact of the situation you are facing.
5. Describe the scope of the relief you are seeking:
 - a. The number of additional exemptions (flex engines/pieces of equipment).
 - b. The amount of time you need relief for.
6. Briefly explain the consequences of not getting hardship relief and state how you determined the extent of those consequences (e.g., financial forecasts, industry studies, etc):
 - a. For your company (e.g., cease of operations, bankruptcy or serious economic impact, furloughs, layoffs, etc).
 - b. For the marketplace/customers (e.g., loss of a unique product, marketplace not able to meet demand, etc.)
 - c. Companies that do business with you upstream or downstream (e.g., suppliers, dealers)
7. If approved, economic hardship relief is available for only 12 months or 24 months for small volume manufacturers. Will your company be able to avoid hardship after that period? What will happen after the 12 months are over?

Section B2. Financials

1. State the cost of bringing your equipment into compliance in the absence of hardship relief.
 - a. Include the costs you have incurred so far in your efforts to redesign your equipment as well as the costs you expect to incur for the remaining redesign efforts.
 - b. Compare that cost to the cost of bringing into compliance other lines of equipment you produce, if any. Explain any differences.
2. Describe your company's ability to endure hardship. In your answer, please address the following:
 - a. If your company or conglomerate has an international presence, could International sales make up for the loss of revenue/profits caused by the impending hardship?
 - b. Would your parent or sister companies assist your company financially throughout the hardship period until the issues are resolved?
3. Please submit information and documentation that will give us a clear picture of the financial health of your overall company for at least the last 3 years, (we might request additional years if we deem the information necessary to examine any relevant patterns identified throughout the evaluation process), including but not limited to:
 - a. SEC form 10-K
 - i. If your company is publically traded, include your company's SEC 10-K filings for the applicable years.
 - ii. If your company is not required to file reports with the SEC, and you have not prepared these kinds of statements before, please visit <http://www.sec.gov/investor/pubs/begfinstmtguide.htm> for an overview and definitions.
 - b. Balance sheets, which clearly state assets, liabilities, capital/cash accounts, and net worth/shareholders' equity
 - c. Income statements, clearly indicating profits or losses
 - d. Statement of changes in financial position, which clearly show cash flow, sources and uses of funds.
 - e. Forecasted financial statements for the period of anticipated hardship
 - i. Clearly show your company's expected financial position with and without hardship relief.
 - ii. Include in your analysis any measures you plan to adopt if your application for hardship relief is not granted.
 - f. Clearly state the income you expect to receive from the sale of the additional exempted equipment if your application is approved. Include:
 - i. The current cost and sales price of compliant equipment
 - ii. The current cost and sales price of the noncompliant equipment