UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 **REGISTRATION STATEMENT UNDER**

THE SECURITIES ACT OF 1933

Kirby Corporation

(Exact name of registrant as specified in its charter)

Nevada (State or other jurisdiction of incorporation or organization)

74-1884980 (I.R.S. Employer Identification No.)

55 Waugh Drive, Suite 1000 Houston, Texas 77007 (Address of Principal Executive Offices)

KIRBY CORPORATION 2005 STOCK AND INCENTIVE PLAN (Full title of the plan)

> David W. Grzebinski **Executive Vice President and Chief Financial Officer Kirby Corporation** 55 Waugh Drive, Suite 1000 Houston, Texas 77007 (Name and address of agent for service)

(713) 435-1000 (Telephone number, including area code, of agent for service)

copy to:

Thomas G. Adler, Esq. Fulbright & Jaworski L.L.P. 2200 Ross Avenue **Suite 2800** Dallas, Texas 75201 (214) 855-8000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer X

Non-accelerated filer \Box (Do not check if a smaller reporting company) Accelerated filer Smaller reporting company

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
	Amount	maximum	maximum	
Title of securities	to be	offering price	aggregate	Amount of
to be registered	registered (1)	per share (2)	offering price (2)	registration fee
Stock Options and Common Stock, par value \$0.10 per share	2,000,000 shares	\$58.615	\$117,230,000	\$15,990.17

(1) Consists of 2,000,000 shares of common stock, par value \$0.10 per share, reserved for issuance to employees of Kirby Corporation (the "Company") and its subsidiaries pursuant to the Kirby Corporation 2005 Stock and Incentive Plan, as amended (the "Plan"). In addition, if, as a result of stock splits, stock dividends or similar transactions, the number of securities purported to be registered on this Registration Statement changes, the provisions of Rule 416 under the Securities Act of 1933, as amended, shall apply to this Registration Statement, and this Registration Statement shall be deemed to cover the additional securities resulting from the split of, or dividend on, the securities covered by this Registration Statement.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and 457(h) under the Securities Act of 1933, as amended. The offering price per share and aggregate offering price are based upon the average of the high and low prices reported on the New York Stock Exchange on October 23, 2012.

REGISTRATION OF ADDITIONAL SHARES UNDER THE KIRBY CORPORATION 2005 STOCK AND INCENTIVE PLAN

This Registration Statement relates solely to the registration of additional securities of the same class as other securities for which a registration on this form relating to the Plan is effective. This Registration Statement is filed for the purpose of registering an additional 2,000,000 shares of common stock, par value \$0.10 per share, of the Company pursuant to the Plan. Pursuant to General Instruction E to Form S-8, the contents of the Registration Statement on Form S-8 registering 1,000,000 shares of the Company's common stock, originally filed on October 28, 2005 (Registration Statement 333-129290) (the "Original Registration Statement"), are incorporated by reference into this Registration Statement. A 2-for-1 split of the Company's common stock was effected on May 31, 2006, which increased the number of shares covered by the Plan and the Original Registration Statement from 1,000,000 to 2,000,000. In addition, on July 22, 2008, a Registration Statement on Form S-8 was filed which registered an additional 1,000,000 shares and increased the number of shares covered by the Plan and the Original Registration Statement covering an additional 2,000,000 shares, a maximum of 5,000,000 shares may be issued under the Plan.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

The following documents are filed as a part of this Registration Statement.

Exhibit Number	Description
4.1*	Kirby Corporation 2005 Stock and Incentive Plan, as amended
5.1*	Opinion of Fulbright & Jaworski L.L.P.
23.1*	Consent of Fulbright & Jaworski L.L.P. (included in the opinion filed as Exhibit 5.1 hereto).
23.2*	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
24.1*	Power of Attorney (included with signature page of this Registration Statement).
* Filed herewith	1

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Houston, State of Texas, on October 23, 2012.

KIRBY CORPORATION

By: /s/ Joseph H. Pyne

Joseph H. Pyne Chairman of the Board and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each individual whose signature appears below constitutes and appoints Joseph H. Pyne and David W. Grzebinski as his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and to file the same with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each such attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person hereby ratifying and confirming that said attorney-in-fact and agent or his substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

Signature	Capacity	Date
/s/ Joseph H. Pyne Joseph H. Pyne	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	October 23, 2012
/s/ David W. Grzebinski David W. Grzebinski	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	October 23, 2012
/s/ Ronald A. Dragg Ronald A. Dragg	Vice President and Controller (Principal Accounting Officer)	October 23, 2012
/s/ Richard J. Alario Richard J. Alario	Director	October 23, 2012
/s/ C. Sean Day C. Sean Day	Director	October 23, 2012
/s/ Bob G. Gower Bob G. Gower	Director	October 23, 2012
/s/ William M. Lamont, Jr. William M. Lamont, Jr.	Director	October 23, 2012

/s/ C. Berdon Lawrence C. Berdon Lawrence	Director	October 23, 2012
/s/ David L. Lemmon David L. Lemmon	Director	October 23, 2012
/s/ Monte J. Miller Monte J. Miller	Director	October 23, 2012
/s/ George A. Peterkin, Jr. George A. Peterkin, Jr.	Director	October 23, 2012
/s/ Richard R. Stewart Richard R. Stewart	_ Director	October 23, 2012

INDEX TO EXHIBITS

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KIRBY CORPORATION

2005 STOCK AND INCENTIVE PLAN

ARTICLE I GENERAL

Section 1.1. *Purpose*. The purpose of this Plan is to advance the interests of Kirby Corporation, a Nevada corporation (the "Company"), by providing an additional incentive to attract and retain qualified and competent employees for the Company and its subsidiaries, upon whose efforts and judgment the success of the Company is largely dependent, through the award of (i) Options to purchase shares of Common Stock (which Options may be Incentive Stock Options or Nonincentive Stock Options); (ii) shares of Restricted Stock; and (iii) Performance Awards.

Section 1.2. Definitions. As used herein, the following terms shall have the meaning indicated:

(a) "Award" means a grant under this Plan in the form of Options, Restricted Stock, Performance Awards or any combination of the foregoing.

(b) "Board" means the Board of Directors of the Company.

(c) "Change in Control" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d)(2) of the Securities Exchange Act of 1934, as amended) becomes the beneficial owner, directly or indirectly, of voting securities representing thirty percent (30%) or more of the combined voting power of the Company's then outstanding voting securities;

(ii) The Board ceases to consist of a majority of Continuing Directors, with the term "Continuing Director" meaning a Director who (A) is a Director on the effective date of the Plan or (B) is nominated or appointed to serve as a Director by a majority of the then Continuing Directors;

(iii) (A) Any consolidation or merger of the Company or any Subsidiary that results in the holders of the Company's voting securities immediately prior to the consolidation or merger having (directly or indirectly) less than a majority ownership interest in the outstanding voting securities of the surviving entity immediately after the consolidation or merger, (B) any sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all or substantially all of the assets of the Company or (C) the liquidation or dissolution of the Company;

(iv) The stockholders of the Company accept a share exchange, with the result that stockholders of the Company immediately before such share exchange do not own, immediately following such share exchange, at least a majority of the voting securities of the entity resulting from such share exchange in substantially the same proportion as their ownership of the voting securities outstanding immediately before such share exchange; or

(v) Any tender or exchange offer is made to acquire thirty percent (30%) or more of the voting securities of the Company, other than an offer made by the Company, and shares are acquired pursuant to that offer.

For purposes of this definition, the term "voting securities" means equity securities, or securities that are convertible or exchangeable into equity securities, that have the right to vote generally in the election of Directors.

(d) "Code" means the Internal Revenue Code of 1986, as amended.

(e) "Committee" means the Compensation Committee, if any, appointed by the Board.

(f) "Date of Grant" means the date on which the Committee takes formal action to grant an Award to an Eligible Person or such later date as may be specified by the Committee when approving the Award.

(g) "Director" means a member of the Board.

(h) "Disability" means mental or physical disability as determined by a medical doctor satisfactory to the Committee.

(i) "Eligible Person" means an employee of the Company or a Subsidiary.

(j) "Existing Plan" means the 2005 Stock and Incentive Plan as approved by the stockholders of the Company on April 26, 2005 and as amended through July 22, 2008.

(k) "Fair Market Value" of a Share means the closing price on the New York Stock Exchange on the day of reference. If the Shares are not listed for trading on the New York Stock Exchange, the Fair Market Value on the date of reference shall be determined by any fair and reasonable means prescribed by the Committee.

(l) "Incentive Stock Option" means an option that is an incentive stock option as defined in Section 422 of the Code.

(m) "Nonincentive Stock Option" means an option that is not an Incentive Stock Option.

(n) "Option" means any option granted under this Plan.

(o) "Optionee" means a person to whom a stock option is granted under this Plan or any successor to the rights of such person under this Plan by reason of the death of such person.

(p) "Participant" means a person to whom an Award is granted under the Plan.

(q) "Performance Award" means an Award granted pursuant to Article IV.

(r) "Performance Objectives" means the objectives established by the Committee pursuant to Section 4.1(b).

(s) "Performance Period" means the period over which the performance of a holder of a Performance Award is measured.

(t) "Plan" means this Kirby Corporation 2005 Stock and Incentive Plan.

(u) "Restricted Stock" means Shares granted under this Plan that are subject to restrictions imposed by the Committee pursuant to Article III.

(v) "Restricted Stock Award" means an award of Restricted Stock under this Plan.

(w) "Section 162(m) Participant" means each Participant who would be a "covered employee" under Section 162(m) of the Code.

(x) "Share" means a share of the common stock, par value ten cents (\$0.10) per share, of the Company.

(y) "Subsidiary" means any corporation (other than the Company) in any unbroken chain of corporations beginning with the Company if each of the corporations other than the last corporation in the unbroken chain owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in the chain.

Section 1.3. Total Shares and Limitations.

(a) The maximum number of Shares that may be issued under the Plan shall be Five Million (5,000,000) Shares, which may be from Shares held in the Company's treasury or from authorized and unissued Shares. If any Award granted under the Plan shall terminate, expire or be cancelled or surrendered as to any Shares, or the Award is paid in cash in lieu of Shares, the Shares that were subject to such Award shall not count against the above limit and shall again be available for grants under the Plan. Shares equal in number to the Shares surrendered in payment of the option price of an Option and Shares that are withheld in order to satisfy federal, state or local tax liability, shall not count against the above limit and shall be available for grants under the Plan. All Share numbers in the Plan reflect the 2-for-1 split of the common stock of the Company effected on May 31, 2006.

(b) The maximum aggregate number of Shares that may be issued under the Plan pursuant to the exercise of Incentive Stock Options shall be 1,000,000.

(c) The maximum number of Shares that may be issued to any Participant pursuant to the exercise of Options during any calendar year shall be 500,000.

(d) The maximum number of Shares that may be issued to any Participant pursuant to any Performance Award during the term of the Plan shall be 400,000.

(e) The maximum amount of cash that may be paid to any Participant pursuant to any Performance Award during any calendar year shall be \$5,000,000.

Section 1.4. Awards Under the Plan.

(a) Only Eligible Persons may receive awards under the Plan. Awards to Eligible Persons may be in the form of (i) Options; (ii) shares of Restricted Stock; (iii) Performance Awards; or (iv) any combination of the foregoing. No Award shall confer on any person any right to continue as an employee of the Company or any Subsidiary.

(b) Each Award shall be evidenced by an agreement containing any terms deemed necessary or desirable by the Committee that are not inconsistent with the Plan or applicable law.

ARTICLE II STOCK OPTIONS

Section 2.1. *Grant of Options*. The Committee may from time to time grant Options to Eligible Persons. Options may be Incentive Stock Options or Nonincentive Stock Options as designated by the Committee on or before the Date of Grant. If no such designation is made by the Committee for an Option, the Option shall be a Nonincentive Stock Option. The aggregate Fair Market Value (determined as of the Date of Grant) of the Shares with respect to which Incentive Stock Options are exercisable for the first time by an Optionee during any calendar year under the Plan and all such plans of the Company and any parent or subsidiary of the Company (as defined in Section 424 of the Code) shall not exceed \$100,000.

Section 2.2. *Exercise Price*. The exercise price per Share for any Option shall be determined by the Committee, but shall not be less than the Fair Market Value on the Date of Grant and shall not be less than 110% of the Fair Market Value on the Date of Grant for any Incentive Stock Option if the Optionee is a person who owns directly or indirectly (within the meaning of Section 422(b)(6) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company.

Section 2.3. *Term of Option*. The term of an Option shall be determined by the Committee, provided that, in the case of an Incentive Stock Option, if the grant is to a person who owns directly or indirectly (within the meaning of Section 422(b)(6) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, the term of the Option shall not exceed five years from the Date of Grant. Notwithstanding any other provision of this Plan, no Option shall be exercised after the expiration of its term.

Section 2.4. *Vesting*. Options shall be exercisable at such times and subject to such terms and conditions as the Committee shall specify in the option agreement. Unless the option agreement specifies otherwise, the Committee shall have discretion at any time to accelerate such times and otherwise waive or amend any conditions in respect of all or any portion of any Options. Notwithstanding the other provisions of this Section 2.4 and unless otherwise provided in the option agreement, upon the occurrence of a Change in Control, all Options outstanding at the time of the Change in Control shall become immediately exercisable.

Section 2.5. Termination of Options.

(a) Except as otherwise provided in the option agreement, the portion of an Option that is exercisable shall automatically and without notice terminate upon the earliest to occur of the following:

(i) thirty (30) days after the date on which the Optionee ceases to be an Employee for any reason other than (x) death, (y) Disability or (z) termination for cause;

(ii) one (1) year after the date on which the Optionee ceases to be an Employee as a result of a Disability;

(iii) either (y) one (1) year after the death of the Optionee or (z) six (6) months after the death of the Optionee if the Optionee dies during the 30-day period described in Section 2.5(a)(i) or the one-year period described in Section 2.5(a)(ii);

(iv) the date on which the Optionee ceases to be an Employee as a result of a termination for cause; and

(v) the tenth anniversary of the Date of Grant of the Option.

(b) The portion of an Option that is not exercisable shall automatically and without notice terminate on the date on which the Optionee ceases to be an Employee for any reason.

(c) The Committee shall have discretion at any time to extend the term of any Nonincentive Stock Option to any date that is not later than the date described in Section 2.5(a)(v).

Section 2.6. *Exercise of Options*. An Option may be exercised in whole or in part to the extent exercisable in accordance with Section 2.4 and the option agreement. An Option shall be deemed exercised when (i) the Company has received written notice of such exercise in accordance with the terms of the Option and (ii) full payment of the aggregate exercise price of the Shares as to which the Option is exercised has been made. Unless further limited by the Committee for any Option, the exercise price of any Shares purchased shall be paid solely in cash, by certified or cashier's check, by money order, by personal check or with Shares owned by the Optionee for at least six months, or by a combination of the foregoing. If the exercise price is paid in whole or in part with Shares, the value of the Shares surrendered shall be their Fair Market Value on the date received by the Company.

Section 2.7. Corporate Transactions.

(a) In the event of a merger, consolidation or other reorganization of the Company in which the Company is not the surviving entity, the Board or the Committee may provide for payment in cash or in securities of the Company or the surviving entity in lieu of and in complete satisfaction of Options.

(b) Except as otherwise expressly provided herein, the issuance by the Company of shares of its capital stock of any class, or securities convertible into shares of capital stock of any

class, either in connection with direct sale or upon the exercise of rights or warrants to subscribe therefor, or upon conversion of shares or obligations of the Company convertible into such shares or other securities, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number of or exercise price of Shares then subject to outstanding Options granted under the Plan.

(c) Without limiting the generality of the foregoing, the existence of outstanding Options granted under the Plan shall not affect in any manner the right or power of the Company to make, authorize or consummate (i) any or all adjustments, recapitalizations, reorganizations or other changes in the Company's capital structure or its business; (ii) any merger or consolidation of the Company; (iii) any issue by the Company of debt securities, or preferred or preference stock that would rank above the Shares subject to outstanding Options; (iv) the dissolution or liquidation of the Company; (v) any sale, transfer or assignment of all or any part of the assets or business of the Company; or (vi) any other corporate act or proceeding, whether of a similar character or otherwise.

Section 2.8. *Issuance of Shares*. No person shall be, or have any of the rights or privileges of, a stockholder of the Company with respect to any of the Shares subject to any Option unless and until such Shares (whether represented by certificates or in book-entry or other electronic form) shall have been issued and delivered to such person.

ARTICLE III RESTRICTED STOCK

Section 3.1. Grant of Restricted Stock Awards. The Committee may from time to time grant Restricted Stock Awards to Eligible Persons.

Section 3.2. *Terms and Conditions of Restricted Stock Awards*. Each Restricted Stock Award shall specify the number of shares of Restricted Stock awarded, the price, if any, to be paid by the Participant receiving the Restricted Stock Award, the date or dates on which the Restricted Stock will vest and any other terms and conditions that the Committee may determine. The vesting and number of shares of Restricted Stock may be conditioned upon the completion of a specified period of service with the Company or its Subsidiaries or upon the attainment of any performance goals established by the Committee, including without limitation goals related to the performance of the Company or any Subsidiary, division, department or other unit of the Company, the performance of the Company's common stock or other securities, the performance of the recipient of the Restricted Stock Award or any combination of the foregoing.

Section 3.3. *Restrictions on Transfer*. Unless otherwise provided in the grant relating to a Restricted Stock Award, the Restricted Stock granted to a Participant (whether represented by certificates or in book-entry or other electronic form) shall be registered in the Participant's name or, at the option of the Committee, not issued until such time as the Restricted Stock shall become vested or as otherwise determined by the Committee. If certificates are issued prior to the shares of Restricted Stock becoming vested, such certificates shall either be held by the Company on behalf of the Participant, or delivered to the Participant bearing a legend to restrict transfer of the certificate until the Restricted Stock has vested, as determined by the Committee. The Committee shall determine whether the Participant shall have the right to vote and/or receive

dividends on the Restricted Stock before it has vested. Except as may otherwise be expressly permitted by the Committee, no share of Restricted Stock may be sold, transferred, assigned or pledged by the Participant until such share has vested in accordance with the terms of the Restricted Stock Award. Unless the grant of a Restricted Stock Award specifies otherwise, in the event that a Participant ceases to be an Employee before all the Participant's Restricted Stock has vested, or in the event other conditions to the vesting of Restricted Stock have not been satisfied prior to any deadline for the satisfaction of such conditions set forth in the award agreement, the shares of Restricted Stock that have not vested shall be forfeited and any purchase price paid by the Participant for the forfeited Shares shall be returned to the Participant. At the time Restricted Stock vests (and, if the Participant has been issued legended certificates for Restricted Stock, upon the return of such certificates to the Company), such vested shares shall be issued to the Participant (or the beneficiary designated by the Participant in the event of death), in certificated or book entry or other electronic form, free of all restrictions.

Section 3.4. Accelerated Vesting. Notwithstanding the vesting conditions set forth in a Restricted Stock Award, unless the Restricted Stock Award grant or other agreement with the Participant specifies otherwise:

(a) the Committee may in its discretion at any time accelerate the vesting of Restricted Stock or otherwise waive or amend any conditions of a grant of a Restricted Stock Award, and

(b) all shares of Restricted Stock shall vest upon a Change in Control of the Company.

Section 3.5. *Section 83(b) Election*. If a Participant receives Restricted Stock that is subject to a "substantial risk of forfeiture," such Participant may elect under Section 83(b) of the Code to include in his or her gross income, for the taxable year in which the Restricted Stock is received, the excess of the Fair Market Value of such Restricted Stock on the Date of Grant (determined without regard to any restriction other than one which by its terms will never lapse), over the amount paid for the Restricted Stock. If the Participant makes the Section 83(b) election, the Participant shall (a) make such election in a manner that is satisfactory to the Committee, (b) provide the Company with a copy of such election, (c) agree to notify the Company promptly if any Internal Revenue Service or state tax agent, on audit or otherwise, questions the validity or correctness of such election or of the amount of income reportable on account of such election and (d) agree to such federal and state income tax withholding as the Committee may reasonably require in its sole discretion.

ARTICLE IV

PERFORMANCE AWARDS

Section 4.1. *Terms and Conditions of Performance Awards*. The Committee may from time to time grant Awards that are intended to be "performance-based compensation," which are payable in stock, cash or a combination thereof, at the discretion of the Committee.

(a) Performance Period. The Committee shall establish a Performance Period for each Performance Award at the time such Performance Award is granted. A Performance Period

may overlap with Performance Periods relating to other Performance Awards granted hereunder to the same Participant. The Committee shall not grant Performance Awards to Section 162(m) Participants after the earliest to occur of (i) the 90th day after the start of the Performance Period, (ii) the date on which 25% of the Performance Period has elapsed or (iii) the date on which the satisfaction of the Performance Objectives becomes substantially certain.

(b) Performance Objectives. The Committee shall establish written performance objectives for the Participant at the time of the grant of each Performance Award. Each Performance Award shall be contingent upon the achievement of the Performance Objectives established by the Committee. Performance Objectives shall be based on earnings, cash flow, economic value added, total stockholder return, return on equity, return on capital, return on assets, revenues, operating profit, EBITDA, net profit, earnings per share, stock price, cost reduction goals, debt to capital ratio, financial return ratios, profit or operating margins, working capital or other comparable objective tests selected by the Committee, or any combination of the foregoing, for the Company on a consolidated basis or, if applicable, for one or more Subsidiaries, divisions, departments or other units of the Company or one or more of its Subsidiaries.

(c) Amount; Frequency. The Committee shall determine at the time of grant of Performance Awards the target and maximum values of Performance Awards and the date or dates when Performance Awards are earned.

(d) Payment. Following the end of each Performance Period, the holder of each Performance Award will be entitled to receive payment of an amount, not exceeding the maximum value of the Performance Award, based on the achievement of the Performance Objectives for such Performance Period, as determined in writing by the Committee. Unless otherwise provided in the Performance Award, if the Participant exceeds the specified minimum level of acceptable achievement but does not attain the Performance Objectives, the Participant shall be deemed to have partly earned the Performance Award, and shall become entitled to receive a portion of the total award, as determined by the Committee. Unless otherwise provided in the Performance Award is granted after the start of a Performance Period, the Performance Award shall be reduced to reflect the portion of the Performance Period during which the Performance Award was in effect.

(e) Termination of Employment. Unless otherwise provided in the Performance Award, a Participant who receives a Performance Award and who ceases to be an Employee as a result of death, Disability or retirement before the end of the applicable Performance Period shall be entitled to receive, to the extent earned as a result of the full or partial achievement of the Performance Objectives during the Performance Period, a portion of the Performance Award that is proportional to the portion of the Performance Period during which the Participant was employed, with payment to be made following the end of the Performance Period. Unless otherwise provided in the Performance Award, a Participant who receives a Performance Award who ceases to be an Employee for any reason other than death, Disability or retirement shall not be entitled to any part of the Performance Award.

(f) Accelerated Vesting. Notwithstanding the vesting conditions set forth in a Performance Award, unless the Performance Award specifies otherwise (i) the Committee may

in its discretion at any time accelerate the time at which the Performance Award is considered to have been earned or otherwise waive or amend any conditions (including but not limited to Performance Objectives) in respect of a Performance Award, and (ii) all Performance Awards shall be considered earned upon a Change in Control of the Company. In addition, upon a Change in Control of the Company, unless a Performance Award specifies otherwise, each Participant shall receive the target Performance Award such Participant could have earned for the proportionate part of the Performance Period prior to the Change in Control, and shall retain the right to earn any additional portion of his or her Performance Award if such Participant remains in the Company's employ through the end of the Performance Period.

(g) Stockholder Rights. The holder of a Performance Award shall, as such, have none of the rights of a stockholder of the Company.

(h) Annual Incentive Plan. Cash awards based on the attainment of the performance objectives established under the Company's Annual Incentive Plan may, in the Committee's discretion, be considered Performance Awards granted under the Plan, provided that such awards are subject to the terms and conditions of this Article IV.

ARTICLE V ADDITIONAL PROVISIONS

Section 5.1. *Administration of the Plan*. The Plan shall be administered by the Committee. The Committee shall have the authority to interpret the provisions of the Plan, to adopt such rules and regulations for carrying out the Plan as it may deem advisable, to decide conclusively all questions arising with respect to the Plan, to establish performance criteria in respect of Awards under the Plan, to determine whether Plan requirements have been met for any Participant in the Plan and to make all other determinations and take all other actions necessary or desirable for the administration of the Plan. All decisions and acts of the Committee shall be final and binding upon all affected Participants. If there is no Committee, the Board shall administer the Plan and in such case all references to the Committee shall be deemed to be references to the Board.

Section 5.2. *Adjustments for Changes in Capitalization*. In the event of any (a) stock dividends, stock splits, recapitalizations, combinations, exchanges of shares, mergers, consolidations, liquidations, split-ups, split-offs, spin-offs or other similar changes in capitalization, (b) distributions to stockholders, including a rights offering, other than regular cash dividends, (c) changes in the outstanding stock of the Company by reason of any increase or decrease in the number of issued Shares resulting from a split-up or consolidation of Shares or any similar capital adjustment or the payment of any stock dividend, (d) Share repurchase at a price in excess of the market price of the Shares at the time such repurchase is announced or (e) other similar increase or decrease in the number of the Shares covered by the Awards and in any outstanding Awards under the Plan. In addition, upon the occurrence of any event described in this Section 5.2, the Committee, in its sole discretion, shall make appropriate adjustment in the limits specified in Section 1.3(b), (c) and (d) so that the effect of such limits is, as nearly as practicable, equivalent to the effect of such limits prior to the event in question, provided that any such

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adjustment complies with applicable laws and does not cause an award that is intended to satisfy the performance-based compensation exception under Section 162(m) of the Code to fail to satisfy the exception. In the event of any adjustment in the number of Shares covered by any Award, any fractional Shares resulting from such adjustment shall be disregarded and each such Award shall cover only the number of full Shares resulting from such adjustment.

Section 5.3. Amendment.

(a) The Board may amend or modify the Plan in any respect at any time, subject to stockholder approval if required by applicable law or regulation or by applicable stock exchange rules. Such action shall not impair any of the rights of any Participant with respect to any Award outstanding on the date of the amendment or modification without the Participant's written consent.

(b) The Committee shall have the authority to amend any Award to include any provision which, at the time of such amendment, is authorized under the terms of the Plan; however, no outstanding Award may be revoked or altered in a manner unfavorable to the Participant without the written consent of the Participant.

Section 5.4. *Transferability of Awards*. An Award shall not be transferable by the Participant otherwise than by will or the laws of descent and distribution. So long as a Participant lives, only such Participant or his or her guardian or legal representative shall have the right to exercise such Award.

Section 5.5. *Beneficiary*. A Participant may file with the Company a written designation of beneficiary, on such form as may be prescribed by the Committee, to receive any Shares, Awards or payments that become deliverable to the Participant pursuant to the Plan after the Participant's death. A Participant may, from time to time, amend or revoke a designation of beneficiary. If no designated beneficiary survives the Participant, the executor or administrator of the Participant's estate shall be deemed to be the Participant's beneficiary.

Section 5.6. *Non-uniform Determinations*. Determinations by the Committee under the Plan (including, without limitation, determinations of the Eligible Persons to receive Awards, the form, amount and timing of Awards, the terms and provisions of Awards and the agreements evidencing Awards and provisions with respect to termination of employment) need not be uniform and may be made by the Committee selectively among persons who receive, or are eligible to receive, Awards under the Plan, whether or not such persons are similarly situated.

Section 5.7. *Duration and Termination*. The Plan shall be of unlimited duration, provided that no Incentive Stock Option shall be granted under the Plan on or after the tenth anniversary of the effective date of the Plan. The Board may suspend, discontinue or terminate the Plan at any time. Such action shall not impair any of the rights of any holder of any Award outstanding on the date of the Plan's suspension, discontinuance or termination without the holder's written consent.

Section 5.8. *Withholding*. Prior to the issuance of any Shares under the Plan, arrangements satisfactory to the Committee in its sole discretion shall have been made for the Participant's payment to the Company of the amount, if any, that the Committee determines to

be necessary for the Company or Subsidiary employing the Participant to withhold in accordance with applicable federal or state income tax withholding requirements. If the Committee allows Shares to be withheld from an Award to satisfy such withholding requirements, the amount withheld in Shares shall not exceed the minimum amount required to be withheld, determined on the date that the amount of tax to be withheld is to be determined. When payments under the Plan are made in cash, such payments shall be net of an amount sufficient to satisfy such withholding requirements.

Section 5.9. *Agreements and Undertakings*. As a condition of any issuance or transfer of Shares, the Committee may obtain such agreements or undertakings, if any, as it may deem necessary or advisable to assure compliance with any provision of the Plan, any agreement or any law or regulation including, but not limited to, the following:

(a) a representation, warranty or agreement by the Participant to the Company that the Participant is acquiring the Shares for investment and not with a view to, or for sale in connection with, the distribution of any such Shares; and

(b) a representation, warranty or agreement to be bound by any restrictions that are, in the opinion of the Committee, necessary or appropriate to comply with the provisions of any securities law deemed by the Committee to be applicable to the issuance of the Shares.

Section 5.10. *Uncertificated Shares*. In lieu of issuing stock certificates for Shares acquired pursuant to the Plan, the Company may issue such Shares in book-entry or other electronic or uncertificated form, unless prohibited by applicable law or regulation or by applicable stock exchange rules.

Section 5.11. *Governing Law*. The Plan shall be governed by the laws of the State of Texas except to the extent that federal law or Nevada corporate law is controlling.

Section 5.12. *Effective Date*. The Plan amends and restates the Existing Plan in its entirety, effective upon approval by the stockholders of the Company on April 24, 2012.



2200 Ross Avenue, Suite 2800 — Dallas, Texas 75201-2784 Main: 214 855 8000 — Facsimile: 214 855 8200

October 25, 2012

Kirby Corporation 55 Waugh Drive, Suite 1000 Houston, Texas 77007

Re: Registration Statement on Form S-8

Gentlemen:

We have acted as counsel to Kirby Corporation, a Nevada corporation (the "Corporation"), in connection with the preparation of the Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission on or about October 25, 2012, under the Securities Act of 1933, as amended (the "Securities Act"), relating to 2,000,000 shares of the \$0.10 par value common stock (the "Common Stock") of the Corporation that may be issued pursuant to the Kirby Corporation 2005 Stock and Incentive Plan, as amended (the "Plan").

We have examined and relied upon the original, or copies identified to our satisfaction, of (1) the Articles of Incorporation and the Bylaws of the Corporation, as amended; (2) minutes and records of the corporate proceedings of the Corporation with respect to the adoption of the Plan and the reservation of 2,000,000 shares of Common Stock to be issued under the Plan; (3) the Registration Statement and exhibits thereto, including the Plan; and (4) such other documents and instruments as we have deemed necessary for the expression of the opinions herein contained. In making the foregoing examinations, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals, and the conformity to original documents of all documents submitted to us as certified or photostatic copies.

Based upon our examination and consideration of, and reliance on, the documents and other matters described above, we are of the opinion that the shares of Common Stock covered by the Registration Statement, when issued in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Securities and Exchange Commission thereunder.

Respectfully submitted,

/s/ FULBRIGHT & JAWORSKI L.L.P.

Consent of Independent Registered Public Accounting Firm

The Board of Directors Kirby Corporation:

We consent to the use of our reports dated February 28, 2012, with respect to the consolidated balance sheets of Kirby Corporation and consolidated subsidiaries as of December 31, 2011 and 2010, and the related consolidated statements of earnings, stockholders' equity and comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2011 and the effectiveness of internal control over financial reporting as of December 31, 2011, incorporated herein by reference.

/s/ KPMG LLP

Houston, Texas October 25, 2012