

US EPA ARCHIVE DOCUMENT

**Subtitle C and D Corporate Financial Test Analysis  
Issue Paper  
Issues Relating to the Bond Rating Alternative of the Corporate Financial Test**

**Introduction**

This paper analyzes issues raised by commenters on the bond rating requirement of the proposed corporate financial test. The proposed corporate financial test allows owners and operators of MSWLFs and Subtitle C facilities to meet a bond rating requirement in lieu of satisfying certain financial ratios. In the preamble to the October 12, 1994 proposal, the Agency summarized its rationale for allowing the bond rating alternative stating that:

"... a firm's bond rating incorporates an evaluation of a firm's financial management practices. Bond ratings reflect the expert opinion of bond rating services, which are organizations that have established credibility in the financial community for their assessments of firm financial conditions. An analysis of bond ratings showed that bond ratings have been a good indicator of firm defaults, and that few firms with investment grade ratings have in fact gone bankrupt..."<sup>1</sup>

An owner or operator must meet the following requirements to be eligible to use the bond rating alternative:

... A current rating for the owner or operator's most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's ...

These ratings constitute the top four rating categories of either rating agency. Bonds rated in these top four categories are considered to be "investment-grade." Lower-rated bonds are considered speculative.

EPA received comments on various aspects of the bond rating requirement. The key issues raised by commenters are as follows:

- ◆ The Agency should reconsider the use of a bond rating alternative because bond ratings are not a completely reliable indicator of financial strength;
- ◆ Allowable bond ratings should be limited to those based on senior debt; and
- ◆ The Agency should allow the use of investment-grade ratings from other bond rating agencies, specifically Duff & Phelps Credit Rating Company (Duff & Phelps) and Fitch Investors Service (Fitch).

To analyze these issues, ICF gathered information from published articles, telephone conversations with representatives of bond rating agencies, and the corporate literature of rating agencies. We were able to obtain bond default rate studies conducted by the rating agencies as well as independent studies comparing the relative merits of the rating agencies. The sources used in preparing this paper are included in a reference list at the end of the document.

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<sup>1</sup> Federal Register, October 12, 1994, p. 51524.

The key findings of our research are as follows:

- ◆ Data suggest that bond ratings are reliable indicators of a firm's financial health.
- ◆ Bond ratings based on senior (or junior) unsecured debt not guaranteed by parent or other third-party companies most accurately assess a firm's financial condition.
- ◆ We could not evaluate ratings from Duff & Phelps and Fitch because these agencies could not provide us with any bond default information on the ratings they assign. Allowing ratings from Duff & Phelps and Fitch, however, would not likely increase the availability of the proposed Subtitle D corporate financial test.

This paper is organized into four sections. Section 1 provides background information on bonds and bond ratings. Section 2 examines bond ratings' ability to assess a firm's financial condition by investigating cumulative default rates for bonds assigned investment-grade ratings. Section 3 considers the type(s) of rated issues that should be used in the test. Finally, Section 4 compares ratings from Duff & Phelps and Fitch to those from Moody's and Standard & Poor's (S&P), the two rating agencies allowed in the proposed rule.

## 1. Background

A bond rating is an opinion on the ability of the issuing company (issuer) to meet its repayment obligations in a timely manner. Ratings also provide a comparative framework within which the risk associated with different bonds of different issuers can be compared. Bond rating agencies assign ratings for many different types of bonds. Distinctions among bond types can refer to the type of repayment guarantee (or collateral) provided by the bond or the relative repayment priority a bondholder can expect. Various bond types include:<sup>2</sup>

- ◆ **Secured Bonds.** Secured bonds are backed by some form of collateral so that if the issuing company defaults, creditors have claim over the relevant assets. Bond issues by utility and railroad companies are generally secured obligations. There are several types of secured bonds, including mortgage bonds, collateral trust bonds, and equipment trust certificates.
- ◆ **Unsecured Bonds.** Unsecured bonds are not backed by any collateral. Most debt issued by industrial and financial companies tend to be unsecured obligations. The prevalence of unsecured bonds implies that most companies can issue debt based on their own creditworthiness and do not need to back their obligations with collateral. Unsecured bonds may, however, be guaranteed by another company -- the issuing company's parent or another corporate entity. Longer-term unsecured bonds are referred to as debentures whereas shorter-term unsecured bonds are called notes.

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<sup>2</sup> Brealey and Myers, Principles of Corporate Finance, Third Edition.

- ◆ **Senior and Subordinate (Junior) Bonds.** The seniority of a bond refers to the repayment priority the bond receives in case of default. In the event of bankruptcy, senior bondholders are paid off before subordinate bondholders. It is possible for a company to have only senior or only subordinate bonds outstanding. In cases where a company has issued only subordinate bonds, these bonds are subordinate to senior bonds that may be issued in the future.

The above categories of bonds are not necessarily mutually exclusive. For example, a company may issue a senior unsecured bond.

Several bond rating agencies operate in the U.S., of which the best known are Standard and Poor's (S&P) and Moody's. Both agencies rate all kinds of public issues of corporate debt and rate private placements on request. Ratings on public debt are made publicly available by the agencies whereas ratings on private placements are made publicly available at the issuer's discretion. At times, rating agencies provide implied ratings which indicate the credit risk a bondholder could expect if a company issued a specific type of bond. For example, an implied senior rating is the rating that would be given to a company's senior unsecured debt, if it had any.

Since public issues are rated automatically by S&P and Moody's, it is in the issuing company's interest to work cooperatively with the rating agencies. The usual procedure is for the issuing company to approach the rating agency and arrange a meeting in which the company provides information regarding its history, corporate strategy, operating position, financial management, accounting policies, and other relevant topics.<sup>3</sup>

Once a rating has been assigned, S&P and Moody's continue to monitor the financial condition of the issuer through annual reports, industry and economic data, as well as through contact with the issuer. S&P operates a "Credit Watch" system whereby certain companies may be placed on negative watch or positive watch to reflect the rating agency's belief concerning the outlook of the companies. For example, if a company is placed on negative watch it usually means that S&P believes current developments may have negative implications for the company's credit, leading to possible downgrading of its debt.

Bond ratings are based on the financial strength of the issuer, the nature and provisions of the debt, the relative position of the debt to other debt issued by the debtor, and the protection afforded by the debt in the event of bankruptcy. Therefore, the financial strength of the issuing firm is not the only factor that rating agencies take into consideration when allocating a rating to a bond. For example, in the case of "structured deals" (or fully secured debt), the value of the collateral is an important factor. While a secured debt issue may fully deserve the high bond rating it holds, the rating on such an issue does not necessarily assess the financial strength of the firm. This is because a secured bond is analyzed in light of the collateral pledged for repayment. This collateral is pledged only for the bond in question, and could not be used to cover other obligations, such as closure and post-closure care costs in case of default. In the case of unsecured obligations that are guaranteed by another corporate entity, the financial strength of the guarantor is as important, if not more

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<sup>3</sup> Moody's Investors Service, Moody's Credit Ratings and Research, 1995, pp. 16-17, and Standard & Poor's, Corporate Finance Criteria, 1994, pp. 12-13.

so, than the financial strength of the issuing firm. Ratings on unsecured debt, which is not guaranteed by collateral or any other corporate entity, are the most reliable indicator of the issuer's overall financial strength. This is because such ratings do not rely on outside guarantees. The ratings reflect only the financial strength of the issuer.

Fitch and Duff & Phelps, the two other bond rating companies mentioned by commenters, use a process similar to S&P and Moody's in rating bonds. These two rating agencies also combine a review of financial statements and a meeting with management in assigning a rating.<sup>4</sup> Differences between S&P/Moody's and Fitch/Duff & Phelps arise in that Fitch and Duff & Phelps have produced no default studies that illustrate the ability of their ratings to predict the likelihood of firm default. Further, as indicated in Section 4 of this paper, Fitch and Duff & Phelps appear to have a considerably smaller market share and, consequently, rate far fewer debt issues than S&P and Moody's.

## 2. Ability of Bond Ratings to Predict Firm Failures

Several commenters questioned the reliability of bond ratings, citing the recent default of investment-grade bonds issued by Orange County, California as an example of the fallibility of these ratings. To compare the bond rating alternative and the financial test in terms of their ability to predict bankruptcy, ICF:

- (1) Examined the results of corporate bond default studies conducted by Moody's and S&P, as well as the findings of a study conducted by the Federal Reserve Bank of New York; and
- (2) Compared the assurance risk of investment grade bonds with the assurance risk of the ratio component of the financial test.

In conducting this research, ICF investigated the five-year default rates of S&P and Moody's in order to determine if there has been any deterioration in the default risk associated with specific bond ratings (as suggested by some critics). ICF obtained the following documents from Moody's and S&P: Moody's Corporate Bond Defaults and Default Rates: 1970-1994 and S&P's "1993 Corporate Default, Rating Transition Study Results," in the May 2, 1994 issue of CreditReview. These documents provided the necessary data to compute five-year default rates for bonds rated by these companies.<sup>5</sup> A representative at Duff & Phelps recommended an article published by the Federal Reserve Bank of New York as another source of information on rating agencies and default rates.<sup>6</sup> This article was also obtained and reviewed for this analysis.

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<sup>4</sup> Donoghue, Daniel J., Reprint of "Surviving the Credit Rating Process," Journal of Cash Management, September/October 1991, p. 3 and Fitch Research, Rating Industrial Companies, 1995, p. 4.

<sup>5</sup> Only Moody's and S&P research were used because only these agencies provided default rate information.

<sup>6</sup> Telephone conversation with Renee Kinsey, Duff & Phelps, April 5, 1995. The article Ms. Kinsey made reference to was "The Credit Rating Industry," published in the Summer/Fall 1994 issue of Federal Reserve Bank of New York Quarterly Review.

ICF also compared the annual assurance risk of bond ratings and the ratio component of the proposed financial test to verify that the assurance risk of the bond rating financial test alternative is equivalent to the assurance risk of the ratio requirement alternative.<sup>7</sup> Our findings on default rates and assurance risk are discussed below.

### Accuracy of Bond Ratings

Moody's has researched and analyzed the accuracy of its bond ratings over a 25-year period from 1970 to 1994.<sup>8</sup> Moody's notes that of the 640 corporate issuers that defaulted between 1970 and 1994, only two held actual or implied investment-grade ratings on senior unsecured debt at the time of default. These findings indicate that Moody's downgrades companies that appear to be faltering financially. Overall, Moody's investment-grade bonds were found to have a twenty year cumulative default rate of only 6.4 percent, indicating that of all bonds originally assigned an investment-grade rating by Moody's, only 6.4 percent defaulted within twenty years. By comparison, 33.2 percent of speculative-grade bonds (as originally rated) defaulted within 20 years.<sup>9</sup> These figures are derived by analyzing the debt rated by the agency as of January 1 of each year since 1970.

Research conducted by S&P on issuers with actual or implied senior unsecured debt ratings offers similar conclusions with respect to the reliability of S&P's ratings. The thirteen-year cumulative default rate (1981-1993) for S&P investment-grade rated issues stands at 3.9 percent.<sup>10</sup> The strength of an investment-grade rating is also reflected by differences in the number of years between the issuance of a bond (and its original rating) and its time of default. For example, the small number of bonds originally rated AAA that defaulted did so after 8.2 years. In contrast, bonds originally rated BB that later defaulted had a "lifespan" of only 4.9 years.<sup>11</sup> Furthermore, only two AAA rated bonds in S&P's study eventually defaulted and these defaults occurred only after the bonds had been substantially downgraded. In fact, none of the defaulted bonds in the study were rated AAA, AA or A at the time of default. Only 1.3 percent of bonds were rated BBB just prior to default, while over half were rated CCC before defaulting.<sup>12</sup>

Some critics argue that bond ratings do not provide a consistent measure of credit risk

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<sup>7</sup> The assurance risk of any financial assurance mechanism is the fractional risk that the mechanism could fail to provide adequate funds for environmental obligations in a timely manner. For a more complete explanation, see the Issue Paper, Relevant Risk Factors to Consider in a Financial Test.

<sup>8</sup> Moody's Investors Service, Corporate Bond Defaults and Default Rates: 1970-1994, p. 20.

<sup>9</sup> Moody's Defaults, p. 20.

<sup>10</sup> Standard & Poor's, 1993 Corporate Default Rating Transition Study Results, p. 9.

<sup>11</sup> Standard & Poor's Defaults, p. 5.

<sup>12</sup> Standard & Poor's Defaults, p. 5.



over time. An article published by the Federal Reserve Bank of New York states that specific letter ratings corresponded to higher default risks in the 1980s than in the 1970s and concludes that relaxed credit standards may have contributed to the default rate increase.<sup>13</sup> The authors based their opinions on data from Moody's corporate bond default study. While default rates were higher in 1989 than 1971 (the two years compared in the Federal Reserve Board's analysis), the 1989 rates are still quite low. For example, although the five year default rate for bonds rated single-A by Moody's doubled between 1971 and 1989, the 1989 rate was only 0.8 percent.<sup>14</sup>

Exhibit 1 provides five-year default rates for bonds at different points between 1971 and 1989. Although these data indicate that default rates for both rating agencies vary over time, the data from Moody's and S&P do not reveal any clear or consistent upward trend in default rates. For example, while the default rate for bonds rated Baa by Moody's is higher in 1989 than 1971, this default rate is also higher in 1981 than 1984. Default rates for bonds rated A by S&P were the same in 1989 and 1981, while the default rate for A-rated Moody's bonds shows marked variation (both up and down) between 1971 and 1989. These variations may be related to a number of factors, including economic swings and perceptions of risk relative to leverage.

| Exhibit 1: Five Year Bond Default Rates (1971-1989) <sup>15</sup> |             |     |     |     |         |     |     |     |
|---|-------------|-----|-----|-----|---------|-----|-----|-----|
|   | Moody's (%) |     |     |     | S&P (%) |     |     |     |
| Year  | Aaa         | Aa  | A   | Baa | AAA     | AA  | A   | BBB |
| 1971  | 0.0         | 0.0 | 0.4 | 1.1 | NA      | NA  | NA  | NA  |
| 1975  | 0.0         | 0.0 | 0.0 | 0.8 | NA      | NA  | NA  | NA  |
| 1981  | 0.0         | 0.0 | 0.3 | 2.5 | 0.0     | 0.0 | 0.7 | 1.9 |
| 1984  | 0.8         | 1.5 | 1.3 | 1.2 | 0.0     | 1.9 | 0.7 | 1.8 |
| 1989  | 0.0         | 0.3 | 0.8 | 3.2 | 0.0     | 0.0 | 0.7 | 3.8 |

NA = Not available

<sup>13</sup> Cantor, Richard and Frank Packer, "The Credit Rating Industry," Federal Reserve Bank of New York Quarterly Review, vol. 19, no. 2, Summer/Fall 1994.

<sup>14</sup> Moody's Defaults, p. 21-24.

<sup>15</sup> Moody's Defaults, pp. 21-24 and S&P Defaults, pp. 9-10.

### Assurance Risk of Bond Ratings

In proposing the two alternatives of the Subtitle D financial test, the Agency has indicated that both alternatives satisfy the performance standards specified in the October 9, 1991 criteria for financial assurance for MSWLFs.<sup>16</sup> Firm failure rate data and financial test misprediction rates presented in the Subtitle C and D financial test analyses can be used to quantify the reliability of the ratio requirement of the test as an indicator of financial strength.<sup>17</sup> This quantified measure of assurance risk for EPA's proposed ratio requirement can be compared with the assurance risk of investment-grade bonds in order to test the commenters' claims that bond ratings do not provide a reliable indicator of financial strength. The results of this analysis are presented in Exhibit 2 below.

| <b>Exhibit 2: Annual Assurance Risk of Bond Ratings and the Proposed Financial Test (%)</b> |               |
|---|---------------|
| <b>Annual Assurance Risk of Ratio Component of the Financial Test<sup>18</sup></b>          |               |
| Firms With Net Worth Ranging From \$10 Million to Greater Than \$100 Million                | 0.233 - 0.644 |

<sup>16</sup> Federal Register, October 9, 1991, p. 51032.

<sup>17</sup> For a more complete discussion, see Issue Paper, Relevant Risk Factors to Consider in a Financial Test.

<sup>18</sup> ICF Incorporated, Analysis of Assurance Provided by Current and Proposed Financial Assurance Mechanisms, November, 1992, p. 64. This analysis calculated assurance risk by multiplying the annual firm failure rate by the firm-based misprediction rate resulting in an annual assurance risk range of 0.233 to 1.067 percent, depending on net worth category. The firm-based misprediction rates were calculated for each net worth category. This misprediction rate can be defined as the percentage of firms in each net worth category that go bankrupt within a three year time period after passing the bond rating ratio requirement of the proposed financial test.



| <b>Annual Assurance Risk for Bonds Rated by Moody's<sup>19</sup></b> |       |
|--|-------|
| Bonds Rated Aaa  | 0.000 |
| Bonds Rated Aa   | 0.050 |
| Bonds Rated A  | 0.100 |
| Bonds Rated Baa  | 0.352 |
| All Investment-Grade Bonds   | 0.126 |
| <b>Annual Assurance Risk for Bonds Rated By S&amp;P<sup>20</sup></b> |       |
| Bonds Rated AAA  | 0.000 |
| Bonds Rated AA   | 0.100 |
| Bonds Rated A  | 0.133 |
| Bonds Rated BBB  | 0.465 |
| All Investment-Grade Bonds   | 0.175 |

Exhibit 2 shows that the bond ratings allowed in the test actually fare better than the financial ratio portion of the test, as measured by annual assurance risk. That is, the bond rating alternative actually does a better job than the ratio component of "weeding out" firms that should not be allowed to use the test. Only bonds rated "BBB" by S&P have a higher annual assurance risk, and the average assurance risk of S&P's investment grade bonds (0.175 percent) falls in the low end of the range of assurance risk for the ratio component of

<sup>19</sup> Moody's Defaults, pp. 18-20. Annual assurance risks are calculated by converting the average cumulative four year default rate into an annual measure. This conversion is done using the following formula developed by Moody's:  $d(R) = 1 - [1 - D_T(R)]^{1/T}$ , where  $D_T(R)$  equals the average cumulative default rate in year T.

In developing the background document for the Subtitle D financial test, the Agency analyzed three years worth of data for firms that eventually filed for bankruptcy. The Agency decided on a three-year timeframe based on the premise that if a firm passed the financial test in any of those three years prior to bankruptcy, it might be unable to obtain an alternative financial assurance instrument prior to bankruptcy. The rating agencies' four year default rates are comparable to the annual assurance risk of ratio component because the misprediction rate of the financial test is based on an analysis of three full years prior to the year of failure, whereas the four year default rates from S&P and Moody's include the year in which the default occurred.

<sup>20</sup> S&P Defaults, p. 5. In a telephone conversation with Reza Bahar of S&P on April 28, 1995, Mr. Bahar indicated that dividing the four year cumulative default rate by four would yield a relatively accurate estimate of annual default rates.

the financial test. These facts confirm that the bond rating alternative is an accurate indicator of firm financial strength, roughly equivalent to the ratio requirement test.

### 3. Types of Rated Issues to be Allowed for the Tests

The proposed corporate financial test requires owners and operators to use their most recent bond rating to satisfy the requirements of the test's bond rating alternative. The proposed rule does not indicate the type of bonds that can or cannot be used to satisfy this alternative. One commenter raised the issue that the requirement also made no distinction between bond ratings with respect to the seniority of debt. The commenter proposed using ratings on senior debt only, noting that such ratings provide a more accurate assessment of a firm's financial condition. ICF spoke with rating agency representatives and reviewed the agencies' corporate literature in order to evaluate the security and seniority a debt issue should hold to be eligible for the bond rating alternative.<sup>21</sup>

The bond rating alternative is useful only when the rating on a company's debt is based on the underlying financial strength of the issuing firm. Ratings on unsecured debt, which are not guaranteed by any other corporate entity, meet this condition. A company's most recent bond issue may be debt that is fully secured or debt that is guaranteed by another corporate entity. Ratings on secured or guaranteed debt do not provide information on the issuer's creditworthiness given that such ratings take into account the guarantees pledged for debt service.

By requiring companies to use the rating on their most recent debt, the financial test draws comparisons between companies that may not be valid. For example, Company A may pass the financial test based on the fact that its most recent debt is rated "BBB" by S&P whereas Company B may fail the test because its most recent debt is rated only "BB." Company A's most recent bond may, however, be fully secured whereas Company B's most recent bond may be unsecured debt. The fact that Company B's unsecured debt is rated only slightly lower than Company A's secured debt suggests that Company B is very likely the more financially strong firm. A comparison of both firms' current ratings on their senior unsecured debt (even if these are not the firm's most recent ratings) could prove this point.

These factors suggest that use of a firm's most recent debt rating for the test may not be appropriate because the recency of a rating does not necessarily correspond to its accuracy as an indicator of financial strength. Therefore, the Agency may wish to consider revising the criteria for the bond rating requirement of the financial test as follows:

... a current rating for the owner or operator's unsecured debt, senior or junior, which is not guaranteed by any other corporate entity, of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's.

### 4. Rating Agency Comparison

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<sup>21</sup> Telephone conversation with Roman Szuper, Analyst, Waste Services and Aerospace Industries, S&P, December 13, 1993.

As mentioned earlier, the rating processes of Fitch and Duff & Phelps are similar to those of S&P and Moody's. All four companies use the same basic approach in terms of combining a review of financial statements and a meeting with management. Major differences, however, arise between Fitch/Duff & Phelps and Moody's/S&P with respect to market acceptance. A survey of treasurers of 99 Fortune 500 companies revealed that almost all respondents had obtained a rating from Moody's and S&P, while only 50 and 25 percent, respectively, had obtained ratings from Duff & Phelps and Fitch.<sup>22</sup> This is the case in part because S&P and Moody's rate all public issues (and private issues upon request), while all of Fitch and Duff & Phelps' ratings (both public and private) are done upon request only. Furthermore, over 90 percent of corporate treasurers surveyed felt that a rating from S&P and/or Moody's was essential in order to effectively market their debt issues. This figure dropped to only ten percent for ratings from Duff & Phelps and Fitch.<sup>23</sup>

Bond default information was not readily available from Fitch and Duff & Phelps on ratings they assign.<sup>24</sup> Therefore, we did not have the data necessary to evaluate the assurance risk associated with ratings from these agencies and to compare these risks to those of S&P and Moody's. Instead, however, we examined whether allowing Fitch and Duff & Phelps ratings would increase the availability of the financial test to determine if additional research on the performance of these ratings would be appropriate. Exhibit 3 shows bond ratings from all four rating agencies for all Subtitle D firms that would be eligible for the financial test, based on the test's minimum size requirement.

| Exhibit 3: Bond Ratings for Subtitle D Corporate Financial Test Candidate Firms |                                   |                                    |       |                              |
|---|-----------------------------------|------------------------------------|-------|------------------------------|
| Firm  | S&P                               | Moody's                            | Fitch | Duff & Phelps                |
| American Waste Services, Inc.   | NR                                | NR                                 | NR    | NR                           |
| Browning Ferris Industries, Inc.  | Sr. Unsecured: A<br>Sub. Debt: A- | Sr. Unsecured: A2<br>Sub. Debt: A3 | NR    | Sr. Debt: A<br>Sub. Debt: A- |
| Eastern Environmental Services, Inc.  | NR                                | NR                                 | NR    | NR                           |
| Laidlaw, Inc.   | Sr. Unsecured: BBB+               | Sr. Unsecured: Baa2                | NR    | NR                           |
| Mid-American Waste Systems, Inc.  | Implied Sr.: BB-<br>Sub. Debt: B  | Sr. Sub.: B3                       | NR    | NR                           |

<sup>22</sup> Monroe, Ann, "Rating the Rating Agencies," Treasury & Risk Management, July-August 1994, p. 23.

<sup>23</sup> Monroe, p. 24.

<sup>24</sup> Telephone calls to Richard Raphael of Fitch on March 24, 1995 and Michelle Maddox of Duff & Phelps on March 27, 1995 revealed that these agencies had conducted no such default rate studies.

| Exhibit 3: Bond Ratings for Subtitle D Corporate Financial Test Candidate Firms |                                     |                                     |       |               |
|---|-------------------------------------|-------------------------------------|-------|---------------|
| Firm  | S&P                                 | Moody's                             | Fitch | Duff & Phelps |
| Norcal Solid Waste Systems, Inc.  | NR                                  | NR                                  | NR    | NR            |
| Republic Waste Industries, Inc.   | NR                                  | NR                                  | NR    | NR            |
| Sanifill, Inc.  | Implied Sr.: BB<br>Sub. Debt: B+    | NR                                  | NR    | NR            |
| USA Waste Services  | Implied Sr.: BB-<br>Sub. Debt: B    | Sub. Debt: B3                       | NR    | NR            |
| WMX Technologies, Inc.  | Sr. Unsecured: AA-<br>Sub. Debt: A+ | Sr. Unsecured: A1<br>Sub. Debt.: A2 | NR    | NR            |
| Western Waste Industries  | NR                                  | NR                                  | NR    | NR            |

NR = Not rated  
 Sr. = Senior  
 Sub. = Subordinated

Out of eleven eligible Subtitle D firms, Duff & Phelps rates only one, while Fitch rates none of the eleven. Further, the one company that Duff & Phelps rates (Browning Ferris Industries) is also rated by Moody's and S&P, and can meet the bond rating requirement based on its ratings from those agencies.

One commenter suggests that Fitch and Duff & Phelps may do more of their business in rating smaller firms (including Subtitle D firms). Although this may be true, such firms are likely to fail the proposed test's minimum size requirement and thus would not be eligible to use the test. While Exhibit 3 looks only at the Subtitle D universe, earlier research shows similar results for Subtitle C firms. The original (1981) Subtitle C financial test analysis concluded that:

"In the sample of 55 industrial and electric utilities with Fitch bond ratings of BBB or less, every single one was already rated by Moody's or Standard & Poor's... D&P could not be checked in this manner, but they also seem to rate far fewer firms than Moody's and Standard and Poor's..."<sup>25</sup>

While we could not evaluate the assurance risk of ratings from these smaller agencies, and thus cannot comment on the reliability of their ratings, data suggest that allowing Duff & Phelps and Fitch's ratings would have little or no effect on the availability of the bond rating alternative of the corporate Subtitle D financial test. The uncertain risks associated with these bond ratings, and the extremely low benefit Fitch and Duff & Phelps' ratings could provide in terms of increasing financial test availability, suggest that extending the bond rating alternative might not provide any benefits for the financial test.

<sup>25</sup> Burt, Robert E., Issues Related to the Bond Rating Alternative in the Financial Test, p. 9.

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