

1-1-1985

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### Recommended Citation

J Lon Carlson, John B. Branden, and David W. Martin, *Implications of Executive Order 12.291 for Discretion in Environmental Regulation*, 12 B.C. Env'tl. Aff. L. Rev. 313 (1985), <http://lawdigitalcommons.bc.edu/ealr/vol12/iss2/4>

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# IMPLICATIONS OF EXECUTIVE ORDER 12,291 FOR DISCRETION IN ENVIRONMENTAL REGULATION\*

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## I. INTRODUCTION

A major criticism of federal regulations is that they often impose significant burdens, in the form of additional costs, on the parties affected.<sup>1</sup> In recent years, the Executive branch of the federal government has attempted to address this criticism. The first effort came in 1974 when President Ford instructed agencies to provide a general discussion of the economic implications of certain proposed regulations.<sup>2</sup> Four years later President Carter

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\* The authors are indebted to V. Kerry Smith and Roger W. Findley for very helpful comments on an earlier draft. Allen Basala, Ann Fisher, Arthur Frass, Jim Hibbs, and Jeff Kolb provided helpful documents and guidance. Although the information in this document has been funded in part by the U.S. Environmental Protection Agency under assistance agreement CR-811059-01-1 to the University of Illinois at Urbana-Champaign, it does not necessarily reflect the views of the Agency and no official endorsement should be inferred. Professor Braden was also supported in this research by a fellowship from the University of Illinois Center for Advanced Study.

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<sup>1</sup> Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (1981) cites these burdens as the impetus for its enactment. See 46 Fed. Reg. at 13,193 [hereinafter cited as E.O. 12,291]. This criticism is also noted in Sunstein, *Cost-Benefit Analysis and the Separation of Powers*, 23 ARIZ. L. REV. 1267, 1270 (1981).

<sup>2</sup> See Exec. Order No. 11,821, 39 Fed. Reg. 41,501 (1974).

signed Executive Order 12,044<sup>3</sup> which required an analysis of the economic impacts of "significant" regulations.<sup>4</sup> The latest attempt to address the high costs associated with federal regulations is Executive Order 12,291 (E.O. 12,291) issued by the Reagan Administration in 1981.<sup>5</sup>

While E.O. 12,291 was designed to address the economic burdens generated by federal regulation, it has been met with mixed reactions. The issues that have arisen range from the constitutionality of the Executive Order<sup>6</sup> to the question of its true intent.<sup>7</sup> The question of the constitutionality of E.O. 12,291 has focused on the issue of the separation of powers. Specifically, it is not clear whether the Order's requirement of an analysis of the benefits and costs of proposed regulations will interfere with, and in effect nullify, specific Congressional mandates.<sup>8</sup> With respect to the actual intent of the Order, it has been speculated that E.O. 12,291 is more concerned with merely reducing the volume and scope of regulations than it is with improving the efficiency of regulations.<sup>9</sup>

E.O. 12,291 was a major element of President Reagan's program of regulatory relief.<sup>10</sup> It ostensibly is intended to improve the overall quality and effectiveness of new and existing regulations with respect to economic efficiency. To achieve this goal, the Order calls for the selection of regulatory objectives that will maximize social net benefits; documented analysis is required to support that selection.<sup>11</sup> In particular, E.O. 12,291 requires a Reg-

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<sup>3</sup> See Exec. Order No. 12,044, 43 Fed. Reg. 12,661 (1978).

<sup>4</sup> According to Exec. Order No. 12,044, 43 Fed. Reg. 12,661 (1978), the purpose of a "regulatory analysis" is to consider the economic effects of the proposed regulation. "Significant" regulations are defined in E.O. 12,044 as those regulations that would result in an annual effect on the economy of \$100 million or more, or a major increase in costs or prices for individual industries, levels of government, or geographic regions.

<sup>5</sup> Exec. Order No. 12,291, 46 Fed. Reg. 13,193 (1981).

<sup>6</sup> See, e.g., Rosenberg, *Beyond the Limits of Executive Power: Presidential Control of Agency Rulemaking Under E.O. 12291*, 80 MICH. L. REV. 193 (1981); Sunstein, *supra* note 1.

<sup>7</sup> See Grubb, Wittington & Humphries, *The Ambiguities of Cost-Benefit Analysis: An Evaluation of Regulatory Impact Analyses Under Executive Order 12291* in ENVIRONMENTAL POLICY UNDER REAGAN'S EXECUTIVE ORDER: THE ROLE OF BENEFIT COST ANALYSIS (V. Kerry Smith ed. 1984)[hereinafter cited as Grubb]. See also Sunstein, *supra* note 1, at 1276-77.

<sup>8</sup> Sunstein, *supra* note 1, at 1281; Rosenberg, *supra* note 6, at 195-234.

<sup>9</sup> Grubb, *supra* note 7, at 22, 58.

<sup>10</sup> *Id.* at 1.

<sup>11</sup> Exec. Order No. 12,291, 45 Fed. Reg. 13,193 (1981).

ulatory Impact Analysis (RIA) of all "major" regulations.<sup>12</sup> Under the Order, every RIA must include a description of the benefits, costs, and net benefits of the proposed regulation, and a description of alternative methods for achieving the same regulatory goal at a lower cost with reasons why such alternatives cannot be adopted.<sup>13</sup>

E.O. 12,291 appears, then, to address the economic considerations that are relevant to improving the efficiency of federal regulations. However, closer analysis suggests that there is considerable room for variation in the implementation of the Executive Order's requirements. It has been noted elsewhere that,

[t]he rhetoric of costs and benefits . . . might be understood as something very different: a convenient and workable means of assuring that regulatory decisions are controlled by the President . . . The very indeterminacy of the order tends to support this view. The order defines neither benefits or costs.

. . .

In this respect, the order accords enormous discretion to those who are charged with interpreting it.<sup>14</sup>

The purpose of this article is to show that Executive Order 12,291 provides insufficient guidance to ensure that inefficient regulations will be avoided. Due to vagueness in the Order, administrative agencies are forced to make important decisions concerning when and how to conduct RIAs. Considerations other than efficiency may easily enter into these decisions and undermine the intent of the Order.<sup>15</sup> These issues are explored with reference to regulations issued by the U.S. Environmental Protection Agency (EPA).

The wording of almost any legislative or quasi-legislative mandate must be somewhat general if it is to be applicable to heterogeneous actors. Directives issued to administrative agencies are an excellent example because regulatory objectives vary substantially between the agencies. However, there are instances when the wording in E.O. 12,291 is so general that agencies are left with insufficient guidance. Consequently, important facets of the deci-

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<sup>12</sup> *Id.* at 13,194. For a discussion of what constitutes a "major" regulation, see text and note at note 47.

<sup>13</sup> *Id.* at 13,194.

<sup>14</sup> Sunstein, *supra* note 1, at 1276.

<sup>15</sup> It should be noted that we are not concerned here with the actual intent behind the issuance of E.O. 12,291. Nor is any specific intent assumed in the analysis which follows. Rather, we indicate ways in which concerns that diverge from efficiency may affect the regulatory process.

sion making process remain subject to considerable agency discretion. These include selection and analysis of the regulatory alternatives which are to be considered in a given rulemaking, and determination of whether a proposed regulation is "major," and hence requires an RIA.

Sections 1(b) and 2 of E.O. 12,291 serve as focal points for assessing the extent to which agency discretion is possible. Section 1(b) lists the procedures for determining the priority of a proposed regulation, i.e., whether it is to be considered a "major" regulation. Section 2 outlines the general requirements all agencies must follow when promulgating new regulations, reviewing existing regulations, and developing legislative proposals. The analysis of these two sections reveals numerous areas in which the Executive Order contains ambiguities that must be sorted out by agency personnel responsible for performing regulatory impact studies.

Assessing the response of administrative agencies to the Order contributes to an understanding of the impacts of E.O. 12,291. Therefore, this article also examines the response of the EPA to E.O. 12,291, with particular emphasis on how the EPA has exercised its discretion in the selection and analysis of regulatory alternatives. It will be demonstrated that EPA's long standing practice of applying economic analysis in its rulemaking process is expanded under E.O. 12,291,<sup>16</sup> as the agency has developed an extensive set of guidelines which outline the procedures to be followed in developing preliminary and final RIAs.<sup>17</sup>

## II. IMPLEMENTATION OF THE EXECUTIVE ORDER

The Office of Management and Budget (OMB) is largely responsible for overseeing the implementation of E.O. 12,291. Section 6 of the Order states, in part:

- (a) To the extent permitted by law, the Director [of OMB] shall have authority, subject to the direction of the Task Force, to:

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<sup>16</sup> A number of RIAs performed by the EPA were reviewed in this analysis. See *infra* note 61. Additionally, in the process of developing environmental impact statements of specific regulations prior to the issuance of E.O. 12,291, EPA considered economic impacts of the proposed regulation as well. For a general discussion of these documents, see *infra* note 71.

<sup>17</sup> U.S. EPA, DRAFT GUIDELINES FOR PERFORMING REGULATORY IMPACT ANALYSES (1983) [hereinafter cited as GUIDELINES].

- (1) Designate any proposed or existing rule as a major rule in accordance with Section 1(b) of this Order;
- (2) Prepare and promulgate uniform standards for the identification of major rules and the development of Regulatory Impact Analyses . . .
- (6) Develop procedures for estimating the annual benefits and costs of agency regulations, on both an aggregate and economic or industrial sector basis, for purposes of compiling a regulatory budget.<sup>18</sup>

Section 6(a)(1) empowers the OMB to designate specific rules as "major" thus subjecting those rules to an RIA. Pursuant to the Order, the OMB can override the determination of individual agencies with respect to the priority of specific regulations. However, there are few documented instances where the OMB has exercised this latter power.<sup>19</sup>

The remainder of section 6 gives the OMB the authority to develop guidelines for agencies to follow in the preparation of RIAs. To date, the OMB's guidelines have consisted of a memo entitled, *Interim Regulatory Impact Analysis Guidance*.<sup>20</sup> It outlines the basic elements to be included in an RIA, concentrating on the types of regulatory alternatives that should be considered.<sup>21</sup> However, the memo suffers from a lack of detail and the failure to discuss how the criteria of section 1(b), which identify a given regulation as "major," should be applied. Consequently, the OMB has come under fire from both the General Accounting Office (GAO)<sup>22</sup> and others<sup>23</sup> for its lack of effective effort in fulfilling its duties pursuant to E.O. 12,291.

As a consequence of the lack of guidance from the OMB on

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<sup>18</sup> Exec. Order No. 12,291, 46 Fed. Reg. at 13,196 (1981). The Task Force, mentioned in section 6(a), refers to the Presidential Task Force on Regulatory Relief. For a description of the activities of the Task Force, see PRESIDENTIAL TASK FORCE ON REGULATORY RELIEF, REAGAN ADMINISTRATION ACHIEVEMENTS IN REGULATORY RELIEF FOR STATE AND LOCAL GOVERNMENT, A PROGRESS REPORT (1982).

<sup>19</sup> Grubb, *supra* note 7, at 18-19.

<sup>20</sup> OFFICE OF MANAGEMENT AND BUDGET, INTERIM REGULATORY IMPACT ANALYSIS GUIDANCE (1981) (memorandum).

<sup>21</sup> There are four major categories of alternatives to be considered according to OMB: 1) the consequence of having no federal regulation; 2) any major alternatives that lie beyond the scope of the legislative provision being responded to; 3) alternatives within the scope of the specific legislative provision; and 4) alternative, market-oriented regulations. See OFFICE OF MANAGEMENT AND BUDGET, *supra* note 20, at 2-3.

<sup>22</sup> GENERAL ACCOUNTING OFFICE, IMPROVED QUALITY, ADEQUATE RESOURCES, AND CONSISTENT OVERSIGHT NEEDED IF REGULATORY ANALYSIS IS TO HELP CONTROL COSTS OF REGULATION GAO/PAD-83-6, 51 (1981).

<sup>23</sup> Grubb, *supra* note 7, at 16-17.

matters relating to the Executive Order, administrative agencies have been left with a considerable amount of control over how they will approach the task of complying with E.O. 12,291. The following subsections identify specific areas where agencies have been left to their own interpretations and examine the effects that agency discretion in these areas may have on the quality of regulations. The areas identified include the selection of regulatory options to be considered in the RIA, interpretation of the results of the analysis of the options considered, and the budgeting of funds for the performance of RIAs.

### A. *Choosing Among Regulatory Options*

The stated objective of E.O. 12,291 is to reduce the burdens of existing and future regulations and encourage well-reasoned regulations.<sup>24</sup> Section 2 of the Order requires that *all* regulations be formulated such that:

- (a) Administrative decisions shall be based on adequate information concerning the need for and consequences of proposed government action;
- (b) . . . the potential benefits to society for the regulation outweigh the potential costs;
- (c) . . . regulatory objectives shall be chosen to maximize the net benefits to society;
- (d) Among alternative approaches to any given regulatory objective, the alternative involving the least net cost to society shall be chosen; and
- (e) Agencies shall set regulatory priorities with the aim of maximizing the aggregate net benefits to society, taking into account the condition of the particular industries affected by the regulations, the condition of the national economy, and other regulatory options contemplated for the future.<sup>25</sup>

Subsections 2(a) and (b) attempt to ensure that new regulations will not reduce the level of net benefits (or welfare) currently enjoyed by society as a whole. While the intent of these stipulations is straightforward, the procedures and methods for implementing them are difficult, and in many cases, subject to substantial professional judgment by the analyst. Specifically, a number of problems are associated with cost-benefit analysis, not the least of which is defining what impacts are to be considered. When all of

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<sup>24</sup> Exec. Order No. 12,291, 46 Fed. Reg. at 13,193 (1981).

<sup>25</sup> *Id.* at 13,393-94.

the impacts are identified, there is still the problem of measurement and interpretation of the impacts. Additional problems which arise include identification of the appropriate discount rate to be used, the methods to be used in measuring the various costs and benefits, and the question of how to treat considerations that cannot easily be quantified.<sup>26</sup>

To satisfy subsections 2(c) and (d) simultaneously, agency decision makers must select a range of potential regulatory objectives for the specific problem under consideration. In the area of environmental regulation, this range might take the form of several different concentrations of a particular pollutant to be permitted in a given area. Once the specific concentration levels are identified, the analyst must undertake a series of "cost-effectiveness" analyses to identify the least costly method of achieving *each* concentration level.<sup>27</sup> These analyses will satisfy subsection 2(d). Next, the total benefits associated with each concentration level must be estimated. Finally, net benefits at each level must be calculated using the least costly alternative identified in each of the cost-effectiveness analyses. According to subsection 2(c), the concentration level (i.e., the objective) yielding the greatest net benefits should then be chosen.

The apparent intent of subsection 2(e) is to direct agencies to those areas where the gains (e.g., improvements in environmental quality, human health and safety) from additional regulation will be greatest. This criterion appears to warrant trade-offs between the maximization of aggregate net benefits and the economic well-being of particular sectors of the economy, such as individual industries. This suggests a conflict between subsections 2(c) and

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<sup>26</sup> For a general discussion of these issues, see E. MISHAN, *COST-BENEFIT ANALYSIS* (1976). For a more general critique of the use of cost-benefit analysis in public policy decisions, see S. KELMAN, *WHAT PRICE INCENTIVES? ECONOMISTS AND THE ENVIRONMENT* (1981). See also H. PESKIN & E. PESKIN, *COST-BENEFIT ANALYSIS AND WATER POLLUTION POLICY* (1957); E. GRAMLICH, *BENEFIT-COST ANALYSIS OF GOVERNMENT PROGRAMS* (1981).

<sup>27</sup> The meaning of the phrase "cost-effectiveness" (CE) varies between specific applications. See, e.g., T. Walton & A. Basala, *Cost-Effectiveness Analysis and Environmental Quality Management*, No. 81-59.3, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. (Paper presented at the 74th Meeting of the Air Pollution Control Association.)

Cost-effectiveness is intended here to refer to the situation where we are measuring and comparing the total costs of different means of achieving the same end result. In the instant case, the objective of CE analysis is to identify the least cost method of achieving a given concentration level of a particular pollutant. Note that the least cost method, i.e. pollution control technique, may vary over the different concentration levels considered.



2(e). Assume, for example, that the estimated national benefits of a particular level of control far outweigh the costs incurred, and that the proposed regulation is the least-cost alternative for achieving that control level. Assume also that the regulation will have substantial adverse effects on an industry which provides a large share of employment opportunities in a concentrated area. If the adverse effects manifest themselves in the form of high regional unemployment, it is inevitable that subsections 2(c) and (e) will conflict. What is not clear is how such a conflict is to be resolved.

If observed, the procedures required by Section 2 will lead to the formulation of economically efficient regulations. Those procedures, however, may entail significant administrative costs. Assuming that agencies utilize available resources in an efficient manner,<sup>28</sup> increasing the precision of the estimated benefits and costs will necessarily be accompanied by an increase in administrative costs.<sup>29</sup> On the other hand, increased precision also increases the likelihood of correctly ranking the regulatory alternatives. Assuming a constant or increasing demand for administrative rulemakings, attempts to reduce administrative costs may also reduce the probability of identifying the optimal regulatory alternative, and hence the positive impact of section 2 on the regulatory process.

Based on the preceding analysis, section 2 of E.O. 12,291 seems to provide appropriate criteria for the formulation of economically efficient regulations. Upon closer analysis, however, it can be demonstrated that the Order, while complying with the require-

<sup>28</sup> It should be noted that were it the case that agencies are not using available resources in an efficient manner, increased precision in the estimation process could be achieved without any increase in the operating budget.

<sup>29</sup> The relationship between the precision of cost estimates and the level of expenditures in the estimation process has been analyzed by others. As an example, consider the following table:

Typical Costs For Preparing Estimates of Major Process Equipment  
December, 1980 (\$ $\times 10^3$ )

<i>Type of Estimate</i>	<i>Accuracy Range, %</i>	<i>Cost of Project (\$<math>\times 10^6</math>)</i>		
		<i>Less Than</i>		
		<i>1.0</i>	<i>1.0-5.0</i>	<i>5.0-50.0</i>
Order of Magnitude	-30 to +50	7.5-20	17.5-45	30-60
Budget	-15 to +30	20-50	45-85	70-130
Definitive	-5 to +15	35-85	85-175	150-130

See A. Piculik, & H. Diaz, *Cost Estimating for Major Process Equipment*, 84 CHEM. ENG. 106 (1977).

ments of section 2, provides at least three areas where agency personnel can influence the composition and outcome of the rulemaking process. First, viable regulatory objectives may be excluded from the analysis. Specifically, the wording of particular sections of E.O. 12,291 may be interpreted as permitting the exclusion of certain regulatory alternatives from explicit consideration in the RIA. Second, different judgments concerning the effects of a particular regulatory option may significantly influence the selection process. The point here is that, depending upon the assumptions made in the analysis, very different results can be generated concerning a proposed plan of regulatory action. Finally, the amount of money allocated for the formulation and analysis of a particular regulation may substantially affect the scope and quality of the analysis. Each of these points will be considered separately.

### 1. Consideration of Regulatory Objectives

The required contents of an RIA are insufficient to verify that all of the relevant regulatory alternatives have been considered. Specifically, with respect to alternative regulatory approaches, section 3(d)(4) of the Order requires that, in the RIA, the agency consider alternative approaches that could substantially achieve the *same* regulatory goal at lower cost.<sup>30</sup> If it is assumed that "goal" and "objective" refer to specific levels of pollution control,<sup>31</sup> the implication of section 3(d)(4) is that the content of an RIA may not be adequate to conclude that the regulation selected maximizes society's net benefits. For example, there could be a means of achieving a *different* objective that is costlier to implement and conform to, but that generates greater net benefits (total benefits less the costs of achieving those benefits) to society than the regulatory option selected. However, the wording of E.O. 12,291 does not require a detailed discussion of such alternatives. Hence, there is room for agency decision makers to exercise con-

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<sup>30</sup> Exec. Order No. 12,291, 46 Fed. Reg. at 13,194 (1981).

<sup>31</sup> As indicated in the text, the terms "goal" and "objective" are treated as synonyms herein since E.O. 12,291 makes no such distinction between them. Additionally, the terms "goal" and "objective" are interpreted here as referring to specific levels of pollution control. Section 2(c) refers to "objectives" that maximize the net benefits of the regulation to society. The point is that section 3(d)(4) could be interpreted as applying to a single level of control rather than the range of control levels potentially possible. If the former interpretation is adopted, selection of the economically efficient regulatory option cannot be ensured.

siderable discretion, independent of the constraints of economic efficiency and OMB review, in selecting a particular regulatory objective. In exercising this discretion, administrative agencies may promulgate regulations that generate less than the maximum amount of net benefits possible. Two examples serve to illustrate this point.<sup>32</sup>

First, consider the EPA's Regulatory Impact Analysis of the Final Environmental Standards for Uranium Mill Tailings at Active Sites.<sup>33</sup> In this RIA it is noted that available methods of tailings<sup>34</sup> disposal range from a simple earthen cover to the use of deep mines, resulting in varying degrees of radon emission control depending upon the method used. The RIA then goes on to state that:

The readily available method of tailings disposal is covering the tailings with earth. Other methods are possible but are also more costly. Therefore, this analysis limits the consideration of isolation methods to those involving earthen covers. However, it is recognized that some day other methods providing better isolation may become economically competitive.<sup>35</sup>

It should be stressed that the differences in cost between earthen coverings and its alternatives are not discussed in any detail elsewhere in the document. Thus, by simply dismissing alternative isolation methods, this RIA considers only varying depths of

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<sup>32</sup> With respect to the general issue of alternative selection and analysis, a General Accounting Office (GAO) review of 19 RIAs completed after E.O. 12,291 was issued noted that:

In some cases, the range of alternatives considered was quite narrow . . . . With regard to the choice of alternatives that was made, there were cases where no clear comparison of the costs and benefits was used to justify the choice. In other cases, no reason was given for the alternatives chosen, or the comparison of costs and benefits of alternatives studied was incorrect.

Strictly in terms of relative frequency, the rationale for choosing one alternative over another was the most serious continuing deficiency with the analyses conducted under the new Executive Order.

GENERAL ACCOUNTING OFFICE, *supra* note 22, at 54. This statement is consistent with our conclusion that the exercise of discretionary powers may result in the dismissal or neglect of feasible objectives on grounds other than efficiency. For additional arguments supporting this conclusion, see Grubb, *supra* note 7, at 32.

<sup>33</sup> OFFICE OF RADIATION PROGRAMS, U.S. EPA, REGULATORY IMPACT ANALYSIS OF FINAL ENVIRONMENTAL STANDARDS FOR URANIUM MILL TAILINGS AT ACTIVE SITES, EPA 520/1-83-010 (1983).

<sup>34</sup> Tailings are the unconsolidated waste generated in the process of separating valuable minerals from the raw mined materials.

<sup>35</sup> OFFICE OF RADIATION PROGRAMS, *supra* note 33, at 3-3.

earthen covers as regulatory alternatives regardless of whether the additional alternatives are, in fact, more efficient.

A second example of this problem is found in the Regulatory Impact Analysis of the Effluent Limitations Guidelines Regulation for the Iron and Steel Industry.<sup>36</sup> In this RIA only the proposed regulation was actually analyzed. According to a GAO report, the EPA maintained that analysis of additional alternatives was precluded by court imposed time constraints.<sup>37</sup> It was the GAO's opinion, however, that additional alternatives could have been considered without significant additional expenditures.<sup>38</sup> The implication of the GAO's comments is that the EPA's analysis was insufficient to conclude that the proposed regulation would maximize society's net benefits.<sup>39</sup>

## 2. Consideration of Economic Impacts

Executive Order 12,291 requires analysis of the impacts of regulations on affected industries and consumers, government agencies, national and regional economic conditions, domestic and foreign competition, investment, productivity, and innovation.<sup>40</sup> Such analysis requires that economic conditions and impacts be forecasted. Economic forecasting is an imprecise art requiring substantial subjective judgments to be made by the professional

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<sup>36</sup> OFFICE OF WATER REGULATIONS AND STANDARDS, U.S. EPA, REGULATORY IMPACT ANALYSIS OF THE EFFLUENT LIMITATIONS GUIDELINES REGULATION FOR THE IRON AND STEEL INDUSTRY (1982).

<sup>37</sup> GENERAL ACCOUNTING OFFICE, COST-BENEFIT ANALYSIS HAS LIMITATIONS, BUT CAN STILL PROVE USEFUL IN ASSESSING ENVIRONMENTAL REGULATIONS 4, 25-26 (1984).

<sup>38</sup> *Id.* at 26.

<sup>39</sup> For proposed regulations where an RIA is not required, the potential for discretion in the rulemaking process is even greater. Consider the analysis of the EPA's proposed rule governing pesticide registration proceedings. According to the EPA, this rule was not major and hence a RIA was not necessary. However, the analysis of the regulation was performed according to the OMB's guidelines for RIAs. In describing the analysis of the alternative RPAR initiation criteria (the subject of the rule) it is stated that, "[i]nformation on expected performance of the alternative criteria is from estimates made by Agency personnel who are familiar with the RPAR process. In many cases, only qualitative analyses could be conducted due to data gaps." OFFICE OF PESTICIDE PROGRAMS, U.S. EPA, REGULATORY IMPACT ANALYSIS OF PROPOSED RULES GOVERNING RPAR PROCEEDINGS; CRITERIA FOR THE INITIATION OF RPAR PROCEEDINGS 7 (1982).

The point here is not to bring into question the ability of the agency personnel involved to make such estimates, but rather to note the potential for discretion to enter into the evaluation process. Obviously, in a case such as this, the effects of such discretion could be substantial.

<sup>40</sup> Exec. Order No. 12,291, 46 Fed. Reg. at 13,193-94 (1981).

analyst. These judgments may influence the outcome of regulatory impact studies in significant ways. According to one expert:

The major role professional judgment plays in assessing the merits of the available studies and making the many assumptions necessary in developing these analyses is one of the more important factors contributing to the uncertainty of these estimates. Differences in professional judgment can have an appreciable effect on the magnitude of a "best" estimate.<sup>41</sup>

The relative attractiveness of regulatory alternatives may depend on the subjective criteria used to establish economic forecasts. For example, assume that a particular environmental standard can be met by installing very expensive abatement equipment or by switching to new process equipment that utilizes non-polluting inputs. If the economic analyst believes that the industry is on the verge of a major program of investment in new process equipment, apart from environmental imperatives, then the regulation is likely only to accelerate this trend in a marginal way at modest additional cost. In contrast, a forecaster who foresees little new investment in the industry's production operations may conclude that the regulation will entail extremely costly additions of abatement devices. The two forecasters would reach very different conclusions concerning the economic impacts of the regulation. Hence, the assumptions made in the process of evaluating the economic impacts of proposed regulations may have a substantial effect on the number of RIAs actually performed.

### 3. Administrative Costs

The costs of formulating and assessing specific regulations will vary with the availability of needed data and the scope of the regulation. Consequently, it is difficult to state conclusively how the amount of money available for a particular analysis will affect its overall quality. However, through the budgeting process, agency officials can affect the scope and quality of specific analyses.<sup>42</sup> For example, a limited budget might force the consideration

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<sup>41</sup> A. Frass, *Benefit-Cost Analysis For Environmental Regulation* in ENVIRONMENTAL POLICY UNDER REAGAN'S EXECUTIVE ORDER: THE ROLE OF BENEFIT-COST ANALYSIS (V. Kerry Smith ed. 1984).

<sup>42</sup> Grubb, *supra* note 7, at 16. In the EPA, the budget for an RIA is determined by the "Lead Office" that is in charge of the regulatory proceeding. For further discussion of

of a very narrow range of options such as those for which data is most readily available. Assuming that the costs of analysis increase with the degree of effort necessary to complete the analysis, the same limited budget might preclude consideration of alternatives requiring substantially more effort to gather and analyze data. An example is the case where the options easiest to evaluate are those which require a minimum of change in the industry and hence a minimum of analysis. Alternatives that are more difficult (and presumably more costly) to evaluate include those which require very substantial changes in the industry affected by the regulation. A limited budget may preclude the consideration of such alternatives.

Meeting the condition that the regulatory objective selected in a specific situation maximizes social net benefits requires consideration of all relevant alternatives. Despite this necessity, the analyst's subjective judgments and budgetary constraints may cause some of the alternatives to a proposed regulation to receive only superficial treatment or be neglected entirely in the RIA process. Furthermore, there is no requirement in the Executive Order for documentation sufficient to support the chosen regulatory goal as being the optimum. Consequently, the requirements of E.O. 12,291 can, at best, ensure only that the regulation proposed is the least costly means legally available for achieving the associated objective. This objective may not, in fact, be the one which maximizes society's net benefits from regulation in a particular area.<sup>43</sup>

### *B. Determination of "Major" Rules*

Decisions about which regulatory proposals will require RIAs are important because they determine how much information will be generated and made available for public scrutiny in the course of promulgating regulations. Such information may elucidate strengths or weaknesses of a particular regulation that were not otherwise well-known. In addition, requiring an RIA may slow

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the EPA's procedures for promulgating regulations, see *infra* text and notes at notes 69-85.

<sup>43</sup> It should also be noted that proposed regulations may be motivated by more than purely economic considerations. In general, "one must recognize the extent to which regulatory activity is a political process. Major rules submitted to OMB under the Executive Order have had considerable political or legal momentum. In comparison with the political interests that are brought to bear on these regulatory initiatives, economic analysis is a relatively frail instrument." See Frass, *supra* note 41, at 7.

down the process of promulgating regulations, thereby altering the momentum that characterizes regulatory proceedings.

Executive Order 12,291 requires Regulatory Impact Analyses of proposed regulations that will have a "major" effect on the economy according to the following criteria:

- (1) An annual effect on the economy of \$100 million or more.
- (2) A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions; or
- (3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based firms to compete with foreign-based enterprises in domestic or export markets.<sup>44</sup>

The Director of the OMB, despite authority to prescribe additional criteria for making determinations of major or nonmajor proposals,<sup>45</sup> has not provided any such criteria in writing.<sup>46</sup> Instead, the OMB has relied on consultations with agency officials concerning the significance of individual proposals. A necessary consequence of this approach is that agencies exercise primary authority in determining which proposals will be studied in RIAs,<sup>47</sup> while the OMB retains final authority to accept or reject an agency's final determination.<sup>48</sup> In the sections which follow, it

<sup>44</sup> Exec. Order No. 12,291, 46 Fed. Reg. at 13,193 (1981).

<sup>45</sup> "Each agency shall initially determine whether a rule it intends to propose or to issue is a major rule provided that . . . the Director [of OMB], . . . shall have authority in accordance with Section 1(b) and 2 of this Order, to prescribe criteria for making such determinations . . ." *Id.* at 13,194.

<sup>46</sup> GENERAL ACCOUNTING OFFICE, *supra* note 22, at 51-52.

<sup>47</sup> With respect to the determination of the need for an RIA, it has been said that, "[i]n determining which regulations are 'major' and thus require an RIA, agencies have concentrated on the definition of an annual effect on the economy of \$100 million or more, and ignored the other two definitions of 'a major increase in costs or prices,' and significant adverse effects on competition, employment . . ." Grubb, *supra* note 7, at 19. The obvious effect of this is to induce a downward bias in the number of RIAs which will be performed.

The fact that criteria 2 and 3 of section 1(b) are, as suggested above, largely ignored, may or may not be a serious impediment to the meaningful application of E.O. 12,291. First, agencies may realize a significant increase in administrative costs in the effort to evaluate proposed regulations according to these two criteria. Second, the use of ambiguous phrases like "major increase" and "significant adverse effects" leaves room for a great deal of discretion in determining the effect of a proposed regulation. Third, depending upon the economic assumptions and methodologies employed, each proposed regulation may be evaluated differently giving rise to an unequal application of the same criteria in different situations.

<sup>48</sup> See *supra* text at note 18. For a general discussion of the OMB's oversight role in the designation of rules as "major," see GENERAL ACCOUNTING OFFICE, *supra* note 22, at 51-54.

can be illustrated that the the provisions noted above leave agencies considerable leeway in deciding when to conduct RIAs.

### 1. Ambiguity of "Effect"

In applying the \$100 million effect criteria of section 1(b)(1), the Executive Order provides no guidance as to whether net or gross economic impacts should be used.<sup>49</sup> Net economic impacts refer generally to the difference between gross costs and gross benefits of a given action.<sup>50</sup> Interpreting the criterion as referring to net impacts will lead to fewer RIAs than will either gross measure. For example, assume that a proposed regulation is estimated to generate gross benefits of approximately \$200 million and gross costs of \$180 million. If either of the gross measures is used in applying the criterion of section 1(b)(1), the regulation is to be considered "major." In contrast, under the net effect interpretation the conclusion will be that the regulation is not "major."<sup>51</sup>

In addition to the problems noted above, the vagueness of section 1(b)(1) admits the possibility of basing decisions whether to conduct RIAs on specific portions of overall economic impacts. An agency is not specifically precluded from employing in each regulatory proceeding the criterion that best serves the agency's interests concerning whether to conduct an RIA. An extreme position would be to consider only the agency's costs of promulgating and administering the regulation in question, rather than the overall costs and benefits of the regulation. According to one study, this approach is frequently taken.<sup>52</sup> Considering that the performance of a regulatory analysis under Executive Order 12,044 cost an average of \$212,000 in 1981,<sup>53</sup> use of the agency cost

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<sup>49</sup> "Gross" economic impacts refer to the total costs or total benefits of a given action or policy.

<sup>50</sup> See *supra* note 49.

<sup>51</sup> It has been argued by some that the \$100 million limit refers to net social costs or benefits. Grubb, *supra* note 7, at 20. Elsewhere it has been interpreted as gross costs or benefits, whichever is larger. Frass, *supra* note 41, at 2. However, there is nothing in the Executive Order to support either interpretation as being the correct one. As such, agency decision makers can interpret section 1(b)(1) in various ways. For additional discussion on the ambiguity of the \$100 million criteria, see GENERAL ACCOUNTING OFFICE, *supra* note 22, at 51-52.

<sup>52</sup> Grubb, *supra* note 7, at 19.

<sup>53</sup> GENERAL ACCOUNTING OFFICE, *supra* note 22, at 19. This cost estimate is assumed here to constitute a lower bound on the average cost of performing RIAs under E.O. 12,291. Note that this cost could increase by a factor of 470 and still fall below the \$100 million threshold of section 1(b)(1).



interpretation would almost surely result in agencies performing fewer RIAs than would be performed under the gross or net cost criteria.

## 2. Ambiguity of Superlatives

Terms such as "major" and "significant," used in subsections 1(b)(2) and (3), are not precisely defined in the Executive Order.<sup>54</sup> This ambiguity may result in interpretations of the impacts of regulations which differ among agencies and between cases within an agency. In either of the two situations (interpretation within or across agencies) the circumstances surrounding a given regulation could influence the agency's interpretation of the magnitude of a change in prices or costs arising from the specific regulation. As an example, a 50% increase in the price of something that costs only one dollar may not be interpreted as "major" while a 50% increase in the price of an item that costs \$100 may be interpreted as "major." This may be true even if identical net economic benefits result from the regulations causing these effects. In addition, interpretation of "major" and "significant" may be affected by the projected distribution of the price or cost increase among consumers and producers. For example, if the \$100 item is the major product of an industry threatened by foreign competition while the one dollar item is an incidental product of a diversified and prosperous industry, these circumstances would reinforce the disinclination to view regulation of the latter as a "major" action.

Ambiguities in the Executive Order not only increase its vulnerability to subversion by agencies and analysts; they also permit flexibility in administering the RIA process. The language may be stretched to encompass, for example, a proposed regulation whose impacts may be serious, but not in one of the few ways ostensibly identified in the Order.

## 3. Suggested Remedies

The criteria in section 1(b) need to be general in nature if they are to be at all applicable to the many different agencies to which

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<sup>54</sup> Without clear specification of the meaning of these general terms, application of sections 1(b)(2) and (3) is left wide open. For example, use of the absolute value of a change in some variable as opposed to the value of the percentage change in the same variable may lead to different conclusions as to the magnitude of the change in that variable.

they are directed. Still, agency decisions in the application of section 1(b) would be more predictable and consistent if the problems noted above were corrected. Concerning the \$100 million annual effect criterion in section 1(b)(1), the Executive Order generally emphasizes avoiding unnecessary regulatory costs. Much less attention is given to the benefits of regulation.<sup>55</sup> Consequently, using gross costs as the measure of the annual effect of the proposed regulation may best reflect the implicit goal (decreased costs of regulation) of E.O. 12,291. Note that using gross costs as the standard for application of the \$100 million criteria will generate more RIAs than will a net effect interpretation.<sup>56</sup> An alternative possibility is to limit the performance of RIAs to situations where an extreme imbalance of benefits and costs may arise. In this case, net benefits or costs is the appropriate criterion. This second approach corresponds, in principle, to the General Accounting Office's interpretation of the intent of section 1(b): "By requiring that cost-benefit analysis be prepared only for major regulations, the executive order is consistent with the philosophy that such analysis be done only when the expected payoff is very high."<sup>57</sup> The current wording of the Order invites the first interpretation, and the second interpretation is arguably the most important with regard to efficiency. The only obvious conclusion is that clarification is needed.

The meanings of "major" and "significant" could be made more specific by providing benchmarks in the form of minimum percentage or absolute changes. At a minimum, such a clarification would increase the consistency and predictability of the priority determination process. Provision of such benchmarks would remove the need for subjective assessments of the predicted changes in economic variables, such as prices, employment impacts, and trade balances, to which the terms "major" and "significant" are applied. One would need only to compare the expected changes in the economic variables with the established benchmarks to evaluate the importance of each predicted change.

The guidelines necessary to address the problems noted above should come from the OMB rather than the individual agencies. At a minimum, guidelines developed by the OMB would provide a

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<sup>55</sup> The general tone of the Executive Order is evidenced in the preamble, which states that the objective of E.O. 12,291 is to reduce the burden (presumably costs) of existing and future regulations. Exec. Order No. 12,291, 46 Fed. Reg. at 13,193 (1981).

<sup>56</sup> See *supra* text at notes 50-51.

<sup>57</sup> GENERAL ACCOUNTING OFFICE, *supra* note 37, at 3.

common basis for agencies to work from. This would better ensure consistency in the application of the Executive Order throughout all agencies. Consistency is important to the extent that it allows equitable treatment to different kinds of proposed rules and allows for a more efficient use of resources.<sup>58</sup> Left to their own interpretations, it is unlikely that individual agencies, responding to widely varying mandates, will develop consistent guidelines for the application of the \$100 million criteria and the interpretation of the terms "major" and "significant." Some administrative agencies, notably the U.S. Environmental Protection Agency, have attempted to clarify ambiguities in the Executive Order in the course of responding to it. However, for the Executive Order to be applied consistently, and hence effectively, such clarifications should be applicable across all agencies rather than in isolated cases.

### III. IMPLEMENTATION OF E.O. 12,291: THE CASE OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY

The U.S. Environmental Protection Agency's (EPA) response to E.O. 12,291 is of particular interest because of the EPA's history of evaluating the economic impacts of proposed regulations<sup>59</sup> and the *Guidelines*<sup>60</sup> it has developed for agency personnel to follow in the development of RIAs. Additionally, given the wording of some of the laws to which the EPA must respond, questions arise about whether the Order is applicable to much of EPA's activities.

This section examines how the EPA has responded to E.O. 12,291 and, in particular, how the EPA's *Guidelines* handle discretionary issues such as those discussed in Part II of this paper. The discussion is based on EPA procedural documents, and on a review of four completed RIAs prepared by the Agency by late 1983.<sup>61</sup> Part A of this section addresses the applicability of E.O.

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<sup>58</sup> GENERAL ACCOUNTING OFFICE, *supra* note 22, at 51.

<sup>59</sup> See *supra* text at note 16.

<sup>60</sup> See *supra* note 17.

<sup>61</sup> The four recently completed RIAs we reviewed for this study are: OFFICE OF RADIATION PROGRAMS, U.S. EPA, REGULATORY IMPACT ANALYSIS OF FINAL ENVIRONMENTAL STANDARDS FOR URANIUM MILL TAILINGS AT ACTIVE SITES, EPA 520/1-83-010 (1983); OFFICE OF WATER REGULATIONS AND STANDARDS, U.S. EPA, REGULATORY IMPACT ANALYSIS OF THE EFFLUENT LIMITATIONS GUIDELINES REGULATION FOR THE IRON AND STEEL INDUSTRY (1982); OFFICE OF PESTICIDE PROGRAMS, U.S. EPA, REGULATORY IMPACT ANALYSIS OF PROPOSED RULES GOVERNING RPAR PROCEEDINGS (1982); OFFICE OF PESTICIDE PROGRAMS, U.S. EPA, REGULATORY IMPACT ANALYSIS DATA REQUIREMENTS FOR REGISTERING PESTICIDES UNDER THE FEDERAL INSEC-

12,291 to the activities of the EPA in light of the specific requirements of various laws to which the Agency must respond. Part B outlines the procedures followed in the EPA's rulemaking process, emphasizing the treatment of regulations which lie within the scope of E.O. 12,291. Section C discusses how alternatives to specific regulations are selected and analyzed according to the EPA's Guidelines.

#### A. *EPA and the Applicability of E.O. 12,291*

It has been questioned whether the EPA is able, in many instances, to respond to the mandates of E.O. 12,291 without violating the requirements of statutes which govern its actions.<sup>62</sup> For example, courts have interpreted section 109 of the Clean Air Act<sup>63</sup> as prohibiting the consideration of economic factors in the promulgation of ambient air quality standards.<sup>64</sup> As such, any regulatory impact analyses performed under E.O. 12,291 in support of specific regulations subject to the restrictions of section 109 of the CAA may be considered legally irrelevant to the promulgation of final regulations.<sup>65</sup> If the information contained in such RIAs is not utilized, the performance of those RIAs constitutes a waste of agency resources.

In spite of the legal restriction on the consideration of economic factors in specific situations, the EPA does prepare cost-benefit analyses for significant regulations under the Clean Air Act. This is often done even though these analyses are not necessarily considered in setting environmental quality and emission standards.<sup>66</sup> Performance of the regulatory analysis is in conformance

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TICIDE, FUNGICIDE AND RODENTICIDE ACT, EPA 540/9-82-013 (1982). As of December of 1983, these were the only RIAs completed by the EPA that we were able to obtain via direct request to the EPA.

<sup>62</sup> For a discussion of the applicability of E.O. 12,291 to specific rulemakings by EPA, see GENERAL ACCOUNTING OFFICE, *supra* note 37, at 15-19.

<sup>63</sup> 42 U.S.C. § 7409 (1982).

<sup>64</sup> For references to specific cases, see GENERAL ACCOUNTING OFFICE, *supra* note 37, at 15-19.

<sup>65</sup> Additionally, the Clean Water Act (CWA) directs the EPA to develop industry-specific standards that reflect particular levels of pollution control that are technologically achievable. *See infra* note 105. While the CWA is interpreted as allowing cost-benefit analyses of the proposed regulations for specific industries, consideration of the impact of regulations that span across different industries is not allowed. GENERAL ACCOUNTING OFFICE, *supra* note 37, at 16-17. In both instances, the standards cited may be viewed as effectively precluding the consideration of relevant economic impacts in the promulgation of the necessary regulations.

<sup>66</sup> *See* GENERAL ACCOUNTING OFFICE, *supra* note 37, at 18.

with the Executive Order which requires that *all* major regulations be evaluated with respect to benefits and costs. In those situations where it has been determined that such an analysis cannot be considered in the rulemaking process, the Order requires that the RIA must indicate the specific mandate that forms the basis for that conclusion.<sup>67</sup> In reviewing the EPA's practice of performing cost-benefit analyses which cannot be considered in the promulgation of specific regulations, a recent GAO report concluded that:

cost-benefit analyses that are prepared but not used because of legal restrictions should be sent in summary form to the Congress in order to assist it in carrying out its oversight responsibilities. At present, however, no means exist to ensure that the Congress is made aware of such information.<sup>68</sup>

The GAO's recommendation acknowledges that such information could be quite useful in reviewing current statutes and represents a waste of resources if such documentation is ignored.

### *B. The Rulemaking Process at EPA*

EPA has developed an extensive set of rulemaking procedures for all regulations which are to be published in the *Federal Register* or subject to OMB review under E.O. 12,291.<sup>69</sup> The procedures are broken down into four phases: 1) notification; 2) development plan; 3) proposal; and 4) final rule.<sup>70</sup> Table 1 summarizes this process.<sup>71</sup> While the rulemaking process seems detailed, agencies

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<sup>67</sup> Exec. Order No. 12,291, 46 Fed. Reg. at 13,194 (1981).

<sup>68</sup> GENERAL ACCOUNTING OFFICE, *supra* note 37, at 21.

<sup>69</sup> The description which follows is derived from the OFFICE OF STANDARDS AND REGULATIONS, U.S. EPA, *MANAGING THE PROCESS* (1982) (EPA Regulation Management Series). Additionally, in late 1983, the Office of Policy and Resource Management (OPRM) was reorganized and the Office of Policy Planning, and Evaluation (OPPE) was created in its place. We have assumed that the duties previously performed by OPRM in connection with the RIA process have been assumed by OPPE.

<sup>70</sup> OFFICE OF STANDARDS AND REGULATIONS, *supra* note 69, at 1-5.

<sup>71</sup> In the process of formulating a specific regulation, the EPA also develops a number of documents which detail the various aspects of the proposed regulation. Economic information developed in the course of an environmental regulatory impact analysis is usually presented in three cost-related documents. In chronological order they are: a *Development Document*, an *Economic Impact Analysis*, and the RIA. Depending upon which office of the EPA is developing the regulation, these documents can have titles different from those just listed, or different analyses may be combined in one document. For example, the Office of Air Quality Planning and Standards combines the development document and the economic impact analysis into one document, the *Background Information Document*. However, the three document breakdown is a valid generalized

are at liberty to adopt their own methodologies and regulatory alternatives when performing specific RIAs.

Phase 1 involves the submission of a Start Action Request (SAR) for all rulemakings subject to OMB review under E.O. 12,291.<sup>72</sup> The SAR is filed with the Office of Standards and Regulations (OSR) and then forwarded to the Office of Policy Planning, and Evaluation (OPPE).<sup>73</sup> If the OPPE approves the SAR, it then works with the office in charge of developing the regulation (Lead Office) to classify the rule as either "major," "significant," or "minor."<sup>74</sup> Finally, background materials on the environmental problem being addressed, a preliminary schedule, and a budget for the entire rulemaking process are prepared in the initial phase.<sup>75</sup>

In Phase 2, the Lead Office is required to submit a Development Plan for all regulations classified as "major" and most regulations classified as "significant."<sup>76</sup> The Development Plan is to include,

- (1) an explanation of why the rule is needed, (2) the goals and objectives of the rule, (3) a timetable and budget for developing the rule, (4) a summary of the key issues and regulatory approaches the Task Group will study in depth, and (5) an explanation of how the group will involve other agencies and the public in the rulemaking.<sup>77</sup>

The Development Plan must then receive the approval of the Steering Committee and OPPE.<sup>78</sup> The final step in Phase 2 is to

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representation of the regulatory cost assessment process. A fourth document may be issued to report the benefit analysis.

A development document surveys the existing and potential waste treatment/control technologies for the pollution problem being addressed. A major purpose of this survey is to provide estimates of the costs to the individual firms of the various methods of achieving alternative regulatory objectives, including the one being proposed. Given the plant-level costs of the environmental regulation estimated in the development document, the economic impact analysis extends the cost of the regulation to the economy in general. The focus of this stage of the analysis is on the measurement of society's welfare losses due to the regulation. The RIA summarizes the findings of the development document, the economic impact analysis, and any benefits document prepared for the proposed regulation. See Braden, Martin & Carlson, *Cost Analysis Principles, Approaches, and Problems*, Institute for Environmental Studies, University of Illinois at Urbana-Champaign, Staff Paper No. 16 (1984) (Revised).

<sup>72</sup> OFFICE OF STANDARDS AND REGULATIONS, *supra* note 69, at 1.

<sup>73</sup> *Id.* at 1.

<sup>74</sup> *Id.* at 1-2.

<sup>75</sup> *Id.* at 2.

<sup>76</sup> *Id.* at 2-3.

<sup>77</sup> *Id.* at 3.

<sup>78</sup> *Id.* at 3.

issue an Advanced Notice of Proposed Rulemaking (ANPR) to the Steering Committee for review and approval. The ANPR is a public notice seeking early public comment on the agency's intent to develop the rule in question.<sup>79</sup>

In Phase 3 the proposed rulemaking package is drafted. Included in this package are the Notice of Proposed Rulemaking (NPRM), preliminary analyses supporting the need for the proposed rulemaking, a preliminary RIA, and an "Action Memo."<sup>80</sup> The proposed rulemaking package is then submitted for review by the Steering Committee, OPPE, OMB, and Senior Administrators (or their delegated assistants).<sup>81</sup> Additionally, the NPRM is submitted for public review and comment.<sup>82</sup>

In the final Phase the Final Rulemaking Package is drafted.<sup>83</sup> It includes the Notice of Final Rulemaking (NFR), one or more supporting analyses, various technical documents, the final RIA, and an action memo requesting the Associate Administrator's approval of the recommended rulemaking action.<sup>84</sup> The Final Rulemaking Package must be submitted for review to the Steering Committee, OPPE, OMB, the Chief or Deputy Chief of Staff, and finally the Administrator of EPA.<sup>85</sup>

While the rulemaking review process is prescribed in detail, it is concerned with procedures and does not deal with the selection of regulatory alternatives to be considered in an RIA. Additionally, it is not made clear how rigorous or detailed the methodologies employed in developing and analyzing the regulation should be. Part C addresses these issues by examining, in detail, the regulatory alternatives to be considered in an RIA.

### *C. Alternatives Considered in an RIA*

The EPA's *Guidelines* list four major types of alternatives which should be considered by all RIAs. They include: 1) the consequences of having no federal regulation, 2) alternatives within the legislated provision's scope, 3) alternative, market-oriented methods of regulating (whether or not they are explicitly authorized in the Agency's legislative mandate), and 4) any major

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<sup>79</sup> *Id.* at 4.

<sup>80</sup> *Id.*

<sup>81</sup> *Id.* at 4-5.

<sup>82</sup> *Id.* at 5.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

<sup>85</sup> *Id.*

alternatives beyond the scope of the legislative provision under which the proposed regulation is being promulgated.<sup>86</sup>

The first of these alternatives considers the ability of existing federal or state regulations, market forces, possible judicial mechanisms, and the potential for negotiated voluntary settlements to resolve the problem at issue.<sup>87</sup> While this alternative corresponds, in principle, to the economic future of the industry without the proposed regulation, because it considers alternatives for dealing with the problem in question, it should not be confused with the regulatory baseline. The latter reflects the future of the industry in question in the absence of any type of remedial action.<sup>88</sup>

The second set of alternatives may encompass various degrees of pollution control, compliance deadlines, and methods of ensuring compliance.<sup>89</sup> While the EPA *Guidelines* emphasize the importance of evaluating different control levels, they do not explicitly address alternatives that would achieve the same level of control, i.e., attain the same pollution reductions by different means. The only mention of alternatives of this latter type is in the discussion of the use of cost-effectiveness analyses.<sup>90</sup> A manual prepared for use by the Economic Analysis Branch (EAB) of the EPA's Office of Air Quality Planning and Standards (OAQPS) states that ". . . control techniques representing equivalent stringency levels *do not* constitute different regulatory alternatives."<sup>91</sup> (emphasis added) This definition does not appear to be consistent with the requirements of E.O. 12,291, which states that the regulatory alternatives to be considered *in* the RIA are those which achieve the *same* regulatory goal at less cost.<sup>92</sup> Consequently, the OAQPS may not learn of pollution control measures that achieve a desired result at a cost lower than that required for measures included in the study. In such cases, the Agency may settle for standards less stringent than those that would maximize net economic benefits.

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<sup>86</sup> GUIDELINES, *supra* note 17, at 4. It should be noted that while these alternatives correspond, in principle, to those listed in the OMB's RIA guidance memo, the EPA guidelines are much more detailed and are backed up by a fair degree of supporting material. *See supra* note 21.

<sup>87</sup> GUIDELINES, *supra* note 17, at 5.

<sup>88</sup> *Id.* at 13.

<sup>89</sup> *Id.* at 5.

<sup>90</sup> *Id.* at 19.

<sup>91</sup> JACA Corp., ANALYTICAL METHODS MANUAL, 2.3-5.

<sup>92</sup> *See supra* text at notes 30-32.



The third set, market oriented regulatory methods, includes alternatives argued for by many economists,<sup>93</sup> including taxes and subsidies,<sup>94</sup> transferable discharge permits,<sup>95</sup> and pollution offsets.<sup>96</sup> Such measures afford considerable flexibility to those being regulated. For example, imposition of a tax on pollution emissions allows the polluter to select from a number of pollution control strategies, including reduced output and the use of various pollution control technologies, and hence determine the resulting level of emissions and the amount of the tax to be paid. In contrast, requiring each polluter to achieve specific performance standards, such as levels of emissions, forces the polluter to meet that standard or shut down. To the extent that the set of economic alternatives includes options beyond the scope of the legislated mandate, it overlaps with the final set of alternatives.

The consideration of market oriented approaches has been extremely limited. Among the RIAs examined for this article,<sup>97</sup> the only example found was in the study of effluent guidelines for the iron and steel industry.<sup>98</sup> There, the EPA considered how controlling overall emissions from a production facility, rather than from individual sources within the facility, could lower abatement costs.<sup>99</sup> The final regulation allows for such an approach.<sup>100</sup> In the RIA it is noted that, "[t]his represents a significant departure from the EPA's previous approach to establishing effluent limits and could result in some cost savings to the industry."<sup>101</sup> The RIA

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<sup>93</sup> See W. BAUMOL & W. OATES ENVIRONMENTAL POLICY, AND THE QUALITY OF LIFE 217-82(1979). See also R. JUST, D. HUETH & A. SCHMITZ, APPLIED WELFARE ECONOMICS AND PUBLIC POLICY 275-78 (1982).

<sup>94</sup> For a general discussion of the use of financial incentives to control environmental externalities, see Blackman & Baumol, *Modified Fiscal Incentives in Environmental Policy*, 56 LAND ECON. 417 (1980). See also JUST, *supra* note 93, at 275-78.

<sup>95</sup> For a description of the transferable discharge permit approach to pollution control, see Tietenberg, *Transferable Discharge Permits and the Control of Stationary Source Air Pollution: A Survey and Synthesis*, 56 LAND ECON. 391 (1980).

<sup>96</sup> The most common example of a pollution offset is the bubble concept. For a general discussion of pollution offsets, see RCF, INC., EMISSION REDUCTION BANKING EXPERIENCE IN THE UNITED STATES AND ITS APPLICABILITY IN ILLINOIS. (Study prepared for the Illinois Department of Energy and Natural Resources.)

<sup>97</sup> For a list of the RIAs we examined, see *supra* note 61.

<sup>98</sup> OFFICE OF WATER REGULATIONS AND STANDARDS, *supra* note 36.

<sup>99</sup> This idea of controlling overall emissions from a facility (or in a region) is often referred to as creating an emission "bubble" within which stringent abatement at one source could "offset" emissions above the source-specific standards of another source. See RCF, INC., *supra* note 96. See also, R. FINDLEY & D. FARBER, ENVIRONMENTAL LAW: CASES AND MATERIALS 284-93 (1981).

<sup>100</sup> OFFICE OF WATER REGULATIONS AND STANDARDS, *supra* note 36, at 17.

<sup>101</sup> *Id.* at 4.

also noted that an analogous system of standards applied to several facilities in a region has been successfully applied in the EPA's ambient air standards program and is under consideration in the water program. However, according to the EPA, the multi-plant standard is currently not allowed by the Clean Water Act.<sup>102</sup> In this instance, analysis of market-oriented regulations in RIAs may actually contribute to pressures on Congress to change statutory provisions. Additionally, the Agency may operate the RIA process to serve goals which it views as desirable, such as directing the attention of Congress to additional means for addressing environmental problems.

The fourth set of alternatives directs analysts to consider regulatory alternatives beyond the provisions of the legislated mandate to which they are responding.<sup>103</sup> It could be argued that such efforts constitute a waste of agency resources since rulemakings based upon such alternatives would probably fail a court test under the provisions of the Administrative Procedures Act.<sup>104</sup> Consider, for example, the provisions of the Clean Water Act which direct the EPA to establish Best Available Technology (BAT) standards for various industries.<sup>105</sup> In this case the objective is established by law and it is the Agency's responsibility to select the means best suited to achieving that objective. Technologies may exist which generate less of a reduction in the amount of effluents than the best available technology, but also generate greater net benefits from regulation.<sup>106</sup> However, it ap-

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<sup>102</sup> *Id.* at 17.

<sup>103</sup> GUIDELINES, *supra* note 17, at 5. As is evident from the preceding discussion of market-oriented policies, those policies may actually be a subset of the fourth category.

<sup>104</sup> Section 706 of the Administrative Procedures Act (APA) lists the relevant criteria in the judicial review of administrative law. Specifically, section 706(2)(A) states: "The reviewing court shall hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; . . ." 5 U.S.C. § 706(2)(A) (1982). In the example developed in the text, action could be brought by an environmental group charging the EPA with failure to develop regulations sufficient to achieve the BAT-defined level of control. Regulations which require less than the BAT level of control could be construed as being not in accordance with the law.

<sup>105</sup> 33 U.S.C. § 1311(b) (1982) states, in part, "[i]n order to carry out the objective of this chapter there shall be achieved . . . (2)(A) for pollutants, identified in subparagraphs (C),(D), and (F) of this paragraph, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class . . ."

<sup>106</sup> The point here is that it is the *difference* between total benefits and total costs which, from an efficiency perspective, should be maximized; not the total benefits regardless of costs.

pears that such alternatives are precluded from consideration by the Clean Water Act's requirement of the establishment of BAT standards. Despite these legal limits, such considerations by agencies may serve as useful signals to legislators when amending current statutes or when proposing new legislation. As an example, consider once again the EPA's analysis of the feasibility of the multi-plant bubble in the iron and steel regulations referred to above.<sup>107</sup> The conclusions reached by the agency could serve as evidence of a need for amending current water pollution control laws.<sup>108</sup>

The preceding discussion indicates that the *Guidelines* improve substantially the guidance to EPA regulators concerning the alternative control levels and policies that must be included in an RIA. However, the evaluation of the effects of a proposed regulation on specific industries and the national economy, along with the decision of whether to conduct an RIA in a specific instance, continue to be areas where EPA decisionmakers exercise substantial discretion. Moreover, because the Agency follows its own guidelines and receives minimal guidance from the OMB, the general problem of consistency between agencies in the application of E.O. 12,291 remains unresolved.<sup>109</sup>

#### IV. CONCLUSIONS

This paper has analyzed current requirements for regulatory impact analyses of federal regulations, focusing on the activities of the U.S. EPA. The source of those requirements, Executive Order 12,291, contains ambiguities and qualifications that allow regulators to exercise considerable discretion as to when regulatory impact analyses are conducted, what approaches they consider, and how they are done. An obvious weakness of the Executive Order is its failure to require an explicit analysis of the alternatives for achieving different levels of regulatory control. As a result, an RIA may focus on regulatory options that are politically or analytically expedient rather than considering alternatives that may truly maximize the net benefits to society.

The *Guidelines* issued by the EPA provide important clarifications concerning the issues to be addressed in RIAs. However,

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<sup>107</sup> See *supra* text at notes 101-02.

<sup>108</sup> See *supra* text at note 68.

<sup>109</sup> See *supra* text at note 58.

they do not correct or clarify ambiguities in the Executive Order concerning when RIAs are required, nor can they substitute for directives from the OMB that might promote uniformity among agencies. As a consequence of this ambiguity, environmental regulators retain much control over which regulatory options to subject to regulatory analysis and which of the many economic impacts generally associated with a regulation are studied.

Finally, an overriding aspect of the implementation of E.O. 12,291, which is illustrated by the development of the EPA's *Guidelines*, is the almost total absence of formal OMB guidance with respect to the implementation of E.O. 12,291. This lack of guidance has weakened the effectiveness of the Executive Order by leaving broad portions of the Order open to discretion by individual agency decision makers including those at the OMB. With respect to the latter group, this discretion may allow the OMB to influence the regulatory process on a case-by-case basis and hence serve interests which go beyond the mandate to which the proposed regulation is responding.

Should the OMB undertake the development of an explicit set of guidelines for the various agencies to follow in the implementation of E.O. 12,291, the minimum result would be to facilitate a more consistent, and hence predictable response on the part of individual agencies to the Order. This action would prompt suggestions on how to clarify both the intent of the Order and the guidelines developed by the OMB and, in so doing, improve the quality of federal regulations.

**TABLE 1**  
**RULEMAKING PROCEDURES AT EPA**

Phase	Materials Prepared	Review By
Phase 1	Lead Office prepares and submits 1) a Start Action Request (SAR), 2) a preliminary schedule and budget, 3) works with OPPE to classify rule as "major," "significant," or "minor."	Office of Standards and Regulations (OSR) Office of Policy, Planning, and Evaluation (OPPE)
Phase 2	Lead Office prepares and submits 1) Development Plan 2) Advanced Notice of Proposed Rulemaking	Steering Committee OPPE Steering Committee
Phase 3	Lead Office drafts the proposed rulemaking package which includes 1) Notice of Proposed Rulemaking (NPRM), 2) preliminary analyses supporting need for the rule, 3) preliminary RIA, and 4) Action Memo.	Steering Committee OPPE OMB Senior Administrators
Phase 4	Lead Office drafts the Final Rulemaking Package which includes 1) Notice of Final Rulemaking (NFR), 2) supporting analyses, 3) technical documents, 4) the final RIA, and 5) Action Memo	Steering Committee OPPE OMB Chief/Deputy Chief of Staff Administrator of EPA