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**Author**

Cohen, Nancy J.

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# Emissions Trading and Air Toxics Emissions: RECLAIM and Toxics Regulation in the South Coast Air Basin

*Nancy J. Cohen\**

## I. INTRODUCTION

Exposure to air toxics emissions from industrial sources causes approximately 700 excess cancer cases annually in the South Coast Air Basin<sup>1,2</sup>. Stated in terms of cancer risk, air toxics emissions create an estimated risk of approximately “one thousand cancer cases per million people exposed for a lifetime<sup>3</sup>” in some areas of the Basin.<sup>4</sup> Disproportionately higher cancer risk faces people who live or

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\* Judicial Clerk to Judge Harry Pregerson, Ninth Circuit Court of Appeals; J.D. 1993, UCLA School of Law; B.A. 1989, Stanford University.

The author wishes to thank contributing staff at the South Coast Air Quality Management District, the Environmental Protection Agency and Citizens for a Better Environment. Special thanks to Neil Orloff and Joseph Panasiti.

1. The South Coast Air Basin includes Los Angeles, Orange, Riverside and San Bernardino Counties.

2. SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (“SCAQMD”), 1987 AIR QUALITY MANAGEMENT PLAN REVISION WORKING PAPER NO. 3: THE MAGNITUDE OF AMBIENT AIR TOXICS IMPACTS FROM EXISTING SOURCES IN THE SOUTH COAST AIR BASIN I-2 (June 1987) [hereinafter 1987 MATES STUDY]. The Basin includes only 8.5% of California’s geographic area and 45% of the state’s population, but it includes 83% of the state’s reported air toxics emissions. SCAQMD, STAFF REPORT FOR PROPOSED RULE 1402: CONTROL OF TOXIC AIR CONTAMINANTS FROM EXISTING SOURCES; PROPOSED AMENDED RULE 1401: NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS ES-1 (April 1993) [hereinafter REPORT ON PROPOSED RULE 1402 AND PROPOSED AMENDED RULE 1401]. “[T]he Basin has higher ambient concentrations of almost every toxic air contaminant monitored by ARB [the California Air Resources Board].” *Id.* at 1-5; *see id.* at 1-6 tbl. 1-4.

3. The term “lifetime” means a seventy-year period. Lifetime individual risk measures the probability of an individual contracting cancer due to air pollutant exposure over a seventy-year period. 1987 MATES STUDY, *supra* note 2, at II-3.

4. SCAQMD, DRAFT WORKING PAPER FOR PROPOSED RULE 1402: CONTROL OF TOXIC AIR CONTAMINANTS FROM EXISTING SOURCES; PROPOSED AMENDMENTS TO RULE 1401: NEW SOURCE REVIEW OF CARCINOGENIC AIR CONTAMINANTS; PROPOSED RULE 1401.1: NEW SOURCE REVIEW OF NONCARCINOGENIC AIR CONTAMI-

work near large toxics sources.<sup>5</sup>

These numbers account for only a "small portion of the cancer risks from all environmental pollutants."<sup>6</sup> The air toxics problem in the Basin is even more dramatic than the estimates suggest. At least as to certain toxic chemicals and in certain areas in the Basin, the cancer risk contributed by industry emissions is up to six times greater than accounted for by these estimates.<sup>7</sup>

Also, these estimates ignore non-cancer adverse health effects from air toxics exposure.<sup>8</sup> The non-cancer effects are equally, if not more, indicative of the Basin's air toxics problem than are the cancer risk data, because, as compared to their cancer effects, carcinogenic air toxics often pose greater risk of reproductive problems<sup>9</sup> or of immunologic and neurologic effects.<sup>10</sup> After making necessary

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NANTS 1 (Aug. 19, 1992) [hereinafter DRAFT WORKING PAPER FOR PROPOSED RULE 1402, ETC.].

5. *Id.*

6. 1987 MATES STUDY, *supra* note 2, at 1-2. The estimate only covers pollutants that the South Coast Air Quality Management District ("SCAQMD" or the "District") or California Air Resources Board ("ARB") has authority to regulate. *Id.*

7. For example, whereas in the 1987 MATES Study the District estimates that only 10% of all benzene emissions come from industrial point sources, AB 2588 emission inventories reporting by facilities in the Carson/Wilmington area demonstrates that facilities in that area contribute 60% of the 1987 benzene emissions level. Robert Ginsburg, Ph.D., Testimony on Behalf of the Labor/Community Strategy Center on the Implementation of the Air Toxics "Hot Spots" Law (AB 2588) by the South Coast Air Quality Management District (SCAQMD) at the Public Workshop Held on April 4, 1992 at Banning High School, Wilmington, CA 4 (Apr. 4, 1992) [hereinafter Ginsburg Testimony, Apr. 4, 1992] (transcript available from Labor Community Strategy Center, Van Nuys, CA). See *infra* text accompanying notes 113-16 for a discussion of AB 2588 emission inventories reporting.

8. "For the last 20 years, cancer has been used as a surrogate for *all* effects from low-level, long-term exposure." Ginsburg Testimony, Apr. 4, 1992, *supra* note 7, at 8. Non-cancer effects include such serious problems as birth defects and reproductive toxin, neurological disturbances, eye and respiratory irritation, anemia, pulmonary toxin and kidney toxin. DRAFT WORKING PAPER FOR PROPOSED RULE 1402, ETC., *supra* note 4, at 3 tbl. 1.

9. Ginsburg Testimony, Apr. 4, 1992, *supra* note 7, at 8 (The ability of benzene and dioxin to cause birth defects is 2.5 and 9.5 times greater, respectively, than their ability to cause cancer. (citing D.W. Gaylor, *Comparison of Teratogenic and Carcinogenic Risks*, 10 REGULATORY TOXICOLOGY AND PHARMACOLOGY 138-43 (1989))).

10. Robert Ginsburg, Ph.D., Testimony on Behalf of the Labor/Community Strategy Center on the Implementation of the Air Toxics "Hot Spots" Law (AB 2588) by the South Coast Air Quality Management District (SCAQMD), Diamond Bar, CA 4 (Oct. 2, 1992) [hereinafter Ginsburg Testimony, Oct. 2, 1992] (transcript available from the Labor/Community Strategy Center, Van Nuys, CA) (pointing to the reassessment of dioxin as indicative of the fallacy in assuming that cancer risk from air toxics is the most sensitive indicator of significant health effect). Also, there is no latency period for many of these non-cancer effects, meaning that exposure to emissions of such noncarcinogenic toxics produces concurrent health problems.

upward adjustments in cancer risk estimates and adding non-cancer risk, air toxics emissions pose much greater public health hazards to Basin residents than is generally acknowledged.<sup>11</sup>

Moreover, estimates of Basin-wide air toxics emissions belie local variations in emission levels and health risks. People living or working in toxics "hot spots" suffer higher air toxics exposure levels than do other Basin residents and workers.<sup>12</sup> In terms of overall health risk, "[t]he south-coastal, west-central, and northern (valley) regions of the Basin show risk levels [from multiple air toxics] . . . that are approximately two times greater than the lowest [risk] levels [in the Basin, as found, for example, in] Orange County and inland sites<sup>13</sup> . . . . The risks due to differences in exposure to single pollutants . . . can vary between two to three orders of magnitude . . . ." <sup>14</sup> Thus, protecting residents and workers from cancer and other serious health problems requires controlling air toxics emissions at the local level in addition to addressing air toxics as a Basin-wide problem.

Currently, the South Coast Air Quality Management District ("SCAQMD" or the "District"), the regional air pollution control agency responsible for air quality in the Basin, is developing a market-based emissions trading program called the Regional Clean Air

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11. See generally *id.* Dr. Ginsburg argues that toxicology research over the last twenty years has led to the conclusion "that the toxicological and ecological effects of pollution can be more serious, widespread and damaging than we had previously believed." *Id.* at 3. He urges a new approach to health risk assessment that takes into account a host of excluded factors, including those already mentioned, as well as exposure to related substances that increase the risks of specific effects, synergistic effects from exposure to multiple toxic chemicals, disproportionate risks to children, women and those people with preexisting health problems, and individual susceptibility to air toxics. *Id.* at 4-6. Also, risk assessment should take into account the absence of a latency period for many non-cancer effects.

12. For example, in the south-central area of Rancho Dominguez, the average ambient concentration of benzene is approximately five to six parts per billion ("ppb"), whereas the average concentration in the Yorba Linda area of Orange County is one to three ppb. SCAQMD, ANALYSIS OF AMBIENT DATA FROM POTENTIAL TOXICS "HOT SPOTS" IN THE SOUTH COAST AIR BASIN 4-4 tbl. 4-1 (Sept. 1988) [hereinafter TOXICS "HOT SPOTS" DATA]. For carcinogenic organic gases such as benzene, ethylene dibromide and carbon tetrachloride, the range of emission concentrations in the Basin varies by a factor of twenty. 1987 MATES STUDY, *supra* note 2, at V-3.

13. TOXICS "HOT SPOTS" DATA, *supra* note 12, at 5-9. Illustrative of the high risk areas, the south-central area includes Long Beach and Rancho Dominguez, the west-central area includes Los Angeles and Maywood and the northern area includes Burbank. The relatively low risk areas of Orange County and inland valleys include Upland, Irvine, Anaheim and Yorba Linda. *Id.* at 5-7 tbl. 5-3 (also showing the east, an area which includes Azusa and El Monte, as a relatively low risk area).

14. *Id.* at 5-9, 5-11 fig. 5-2. Risk levels exceed one thousand excess cancer cases in a million in Los Angeles, Hawthorne and Long Beach. *Id.* at 5-8 fig. 5-1.

Incentives Market ("RECLAIM") to regulate criteria pollutant emissions that contribute to smog in the Basin. As proposed, sometime after January 1, 1994, RECLAIM will cover reactive organic compounds ("ROCs"), a pollutant category that embraces significant numbers of toxic chemicals.<sup>15</sup> RECLAIM's impact on air toxics emissions and the District's ability to mitigate adverse health effects enormously affect the proposed program's acceptability. If the innovative regulatory approach significantly exacerbates air toxics emissions problems, its cost to Basin residents and workers, and to society generally, may outweigh any smog reduction benefits and render the program unacceptable.

This Comment will address the compatibility of RECLAIM with existing and proposed toxics regulation. The proposed coexistence of the two separate regulatory schemes raises the immediate question of whether RECLAIM merits ultimate Environmental Protection Agency ("EPA") approval as well as the broader question of whether toxics regulation can mitigate adverse health impacts created by emissions trading programs that affect air toxics emissions. Part II will explain the proposed RECLAIM market, and part III will outline RECLAIM's likely air toxics impacts. Then, part IV will critique the District's approach of relying upon existing and proposed District-level toxics rules to mitigate RECLAIM's air toxics impacts. Finally, part V will recommend safeguards for combining emissions trading programs, such as RECLAIM, with toxics rules to ensure adequate public health protection.

## II.

### RECLAIM: THE PROPOSED MARKET AND LACK OF SCRUTINY OVER TRADES

#### A. *General Overview of RECLAIM*

RECLAIM represents a regional-level, market-based alternative to existing rules for attaining federal and state air quality standards for ozone. Existing regulations reflect the traditional command and control approach to environmental regulation. To achieve emission reductions in ozone precursors, for example, District rules require Basin facilities to obtain a permit for each piece of equip-

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15. *See infra* text accompanying notes 46-48. In the past, the District referred to ROC as ROG, meaning reactive organic gas. Quoted references to ROGs are synonymous with references to ROCs. In September 1993, the District Governing Board will vote on RECLAIM rules for a January 1, 1994 start date on emissions trading in nitrogen oxides (NO<sub>x</sub>) and sulfur oxides (SO<sub>x</sub>). After January 1994, the Governing Board plans to vote on rules for phased-in ROC emissions trading.

ment that emits nitrogen oxides (NO<sub>x</sub>) or ROCs and to install specified control equipment or otherwise achieve stated emission reductions from specific pieces of equipment or processes.<sup>16</sup> Thus, each industrial facility must secure several equipment-specific permits and reduce NO<sub>x</sub> and ROC emissions by the method specified in the rules.

In contrast to the current system, RECLAIM, if adopted, will regulate industrial sources at the facility level through facility permits and annual emission caps.<sup>17</sup> RECLAIM will prescribe annual limits on total facility-wide emissions of NO<sub>x</sub>, sulfur oxides (SO<sub>x</sub>) and ROCs.<sup>18</sup> The emission cap for each of these pollutants will decline annually by specified percentages,<sup>19</sup> meaning that RECLAIM sources will need to demonstrate specified emission reductions each year. Those facilities that achieve reductions beyond the relevant emission cap for any given year will earn credits called RECLAIM Trading Credits ("RTCs" or "credits"), which they will be allowed to sell to other facilities.<sup>20</sup>

Purchasing RTCs will be one way for facilities to comply with emission reduction requirements, but not the only way. Unlike existing rules, RECLAIM rules will not prescribe any single compliance method.<sup>21</sup> Regulated facilities will be able to demonstrate emission reductions by installing control equipment on any or all pieces of equipment within the facility, by using lower emitting materials in reformulated products, by changing their method of

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16. See SCAQMD, REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM) SUMMARY RECOMMENDATIONS EX-1, 2 (Spring 1992) [hereinafter RECLAIM SUMMARY RECOMMENDATIONS]. These rules are promulgated under the approved 1991 Air Quality Management Plan (the "AQMP").

17. *Id.* at EX-7; Proposed District Rule 2000(b)(1) (Nov. 3, 1992) (defining "annual emission cap" as "the mass emissions limit, expressed in pounds per compliance year, on a facility permit"). District rules and proposed rules are not published but are available upon request from SCAQMD, in Diamond Bar, CA.

18. See Proposed District Rule 2000(b)(49) (Nov. 3, 1992) (defining RECLAIM pollutants as ROC, NO<sub>x</sub> and SO<sub>x</sub>); *cf.* Proposed District Rule 2000(c)(46) (May 21, 1993) (defining RECLAIM pollutants as only NO<sub>x</sub> and SO<sub>x</sub>, but only because the District will not include ROCs in the initial market).

19. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at EX-4.

20. Proposed District Rule 2000(c)(47) (May 21, 1993) ("RECLAIM Trading Credit (RTC) is a limited authorization to emit a RECLAIM pollutant . . . . Each RTC has [a fixed] term of one year, and can be held as part of a facility's [a]llocation" to meet its reduction requirements, or may be evidenced by a certificate for sale). RTC allocations and certificates for future years will depreciate each year. Telephone Interview with Karl Lany, Staff Specialist, SCAQMD (June 21, 1993).

21. See RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at EX-1.

operation, or by purchasing RTCs.<sup>22</sup>

Expectedly, facilities that can reduce emissions cost effectively will do so and sell credits to enable other facilities to maintain or even to increase emission levels while still complying with emission targets in their facility permits. In this way, RECLAIM advocates expect the program to create compliance flexibility for industry and air quality for the Basin at implementation costs below those of existing rules.

### B. *A Free Market Without Any Scrutiny over Trades*

To facilitate a free market in RTCs, the District has committed to keep “[u]ser constraints . . . to an absolute minimum.”<sup>23</sup> The District will require only registration rather than approval of most RTC trades and will retain no authority to cancel illegal trades.<sup>24</sup>

#### 1. The “Post-Approval” Approach

The District intends never to interfere with credit trading. Under a “post-approval” approach, facilities will not need to apply to the District for RTCs or for verification of emission reductions prior to trading.<sup>25</sup> Instead, facilities that believe they have earned RTCs will be able to negotiate privately to sell those emission reductions, and the sellers and buyers will need only to register the trade with the District.<sup>26</sup> Registration of trades will be automatic;<sup>27</sup> RTC sales will automatically trigger amendment of the seller’s facility permit to reflect a lower level of allowable annual emissions<sup>28</sup> and amendment of the buyer’s permit to increase the annual emission cap and thereby authorize use of the purchased credit.<sup>29</sup>

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22. *Id.*; Proposed District Rule 2000(a) (Nov. 3, 1992) (stating the purpose of RECLAIM).

23. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 4-3.

24. In addition, keeping trading constraints to an absolute minimum means imposing no geographic or seasonal constraints on trades and treating ROC as a generic pollutant category of homogeneous emissions. For a discussion of these aspects of RECLAIM and the likely aggravation of toxics hot spots problems, see *infra* part III.

25. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 4-5. The alternative approach, rejected by the District, is pre-approval of trades, meaning potential seller facilities must apply for RTCs and await District verification of alleged emission reductions before a buyer may use the credit. *Id.* at 4-4 to 4-5.

26. See *id.* at 4-3 (No prior approval requirement; trades must be registered.).

27. *Id.* at 4-7. However, the District intends to “verify any significant non-physical changes” at the seller facility. And, if “a field inspection identifies a problem” in verifying the claimed emission reductions, registration will not be automatic. *Id.*

28. *Id.* at 4-3.

29. *Id.* at 4-5 (“Buyers must apply for a permit (or permit modification) in order to use the purchased credit.”). Permit amendments will occur through an automated,

As long as the buyer achieves emission increases through non-physical changes, meaning shifts in production without changing physical equipment,<sup>30</sup> the simple registration process will be the sum-total of the District "approval" at the time of credit trades.<sup>31</sup> The buyer will need to undergo engineering review to justify a permit amendment only when it seeks to modify its physical equipment or to install new equipment to increase its emissions.<sup>32</sup> Absent physical facility changes, sellers will be able to sell RTCs, and buyers will be able to apply purchased credits, without any District scrutiny. The sole burden will be a simple emissions reporting requirement. During year-end or other audits, the District will "post-approve" the cumulative emissions from RTC trades at each facility.<sup>33</sup>

## 2. Problematic Enforcement of RECLAIM

The enforcement concern is that the post-approval approach will put the environment at risk. "Postmortem enforcement, potentially a year or more after a violation, burdens the chain of evidence and may result in an unenforceable program."<sup>34</sup> The District's solution is the requirement that sellers be accountable for sold emission re-

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strictly administrative procedure that resembles customer use of a bank versateller machine. Interview with Karl Lany, Staff Specialist, SCAQMD, in Diamond Bar, CA (Sept. 22, 1992). As stressed by a senior staff member, RECLAIM contemplates that credits will be freely traded and used without any District intervention. Interview with Robert Pease, Senior Manager, SCAQMD, in Diamond Bar, CA (Sept. 22, 1992).

30. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 4-2.

31. *See id.* at A-3 (no re-evaluation of existing operations that reduce or increase emissions); Proposed District Rule 2005(d) (Nov. 3, 1992) (Rule 1303(a) Best Available Control Technology ("BACT") requirements shall not apply to such buyers). *But compare* current District Rule 1401 (toxics review not triggered by many trades) with District Rule 1401 as impacted by Proposed District Rule 2005(g) (triggering toxics review of every trade). For a discussion of these rules, see *infra* notes 120-42 and accompanying text.

32. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 4-7, A-3. Emission reductions resulting from physical changes are reductions achieved through "process design modifications or the installation and use of emission control technologies." *Id.* at 4-2. These will be subject to engineering review to verify compliance with non-RECLAIM control technology regulations. *Id.*; *see* Proposed District Rule 2005(b)(1) (Nov. 3, 1992) (denial of permit to construct if, in part, the new or modified facility will not comply with all applicable District rules, thereby incorporating Rule 1303 requirement for installation of BACT).

33. All RECLAIM facilities will need to report their emission levels and prepare quarterly certification reports which will define enforceable quarterly emission caps. The District will have authority to audit facilities' emissions at any time, but there will not be any mandatory review of the legitimacy of individual trades. Interview with Jill Whynot, Program Supervisor, SCAQMD, in Diamond Bar, CA (Nov. 5, 1992).

34. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 4-5.



ductions.<sup>35</sup> RECLAIM will place the entire enforcement focus on sellers.<sup>36</sup> Sellers will need to ensure that claimed emission reductions at their facilities have actually occurred, before or after all RTC sales, to justify the sales.<sup>37</sup> Nonetheless, the sellers' burden of proof will be triggered only during year-end or other audits, at which time they presumably will need to justify emissions on a trade-by-trade basis.

Most notably, the post-approval approach insulates buyers from liability in cases where sellers' alleged emission reductions prove false, meaning that sellers' actual emissions exceed their annual emission cap. The District executive officer will be able to assess a minor administrative penalty against a seller,<sup>38</sup> revoke or revise a seller's facility permit to impose new conditions,<sup>39</sup> and reduce its emissions allocation for the subsequent compliance year by the amount the allocation was exceeded.<sup>40</sup> Furthermore, District prosecutors will be able to seek enforcement of statutory fines against sellers.<sup>41</sup> However, prosecutors will not have authority either to cancel trades or otherwise to enjoin buyers from using illegitimate credits.<sup>42</sup>

From an enforcement perspective, RECLAIM's exclusive focus on sellers is problematic. Joseph Panasiti, senior deputy District prosecutor, explains that by insulating buyers, RECLAIM reduces

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35. *Id.* (also relying upon the requirement that sellers' emissions reductions occur before the quarter of the year in which a sale occurs). Subsequently, the District decided to omit quarterly restrictions on RTC sales. See *infra* notes 59-63 and accompanying text.

36. *Id.*

37. See *id.* at 4-5, 4-7.

38. Proposed District Rule 2010(c)(1) (May 20, 1993) (providing for an administrative penalty of up to five hundred dollars per violation, per day).

39. Proposed District Rule 2010(b)(1)(B), (b)(2) (May 20, 1993).

40. Proposed District Rule 2010(b)(1)(A) (May 20, 1993).

41. For a District rule or permit violation, the California Health and Safety Code provides for a penalty of up to ten thousand dollars (one thousand dollars strict liability), CAL. HEALTH & SAFETY CODE § 42402(a), (b) (West 1993), as well as a fifteen thousand dollar penalty for violation by negligent emission of an air contaminant, *id.* § 42402.1, and, assuming no corrective action is taken within a reasonable time, a twenty-five thousand dollar penalty for violation by knowing emission of an air contaminant, *id.* § 42402.2(a), and a fifty thousand dollar penalty for intentional violation, *id.* § 42402.3. See Proposed District Rule 2004(c)(1) (May 24, 1993) (defining each day of excess emissions as a separate violation).

42. Telephone Interview with Karl Lany, Staff Specialist, SCAQMD (June 18, 1993); Interview with Jill Whynot, Program Supervisor, SCAQMD, in Diamond Bar, CA (Nov. 5, 1992). The District staff does not intend to create any RECLAIM-specific remedies that could supplement general remedies which apply to all SCAQMD rule violations pursuant to state law. Therefore, penalties would be those already established under California law. For a discussion of these penalties, see *supra* note 41.

the number of parties that the District can prosecute, thereby eliminating the favorable situation of buyers and sellers testifying as witnesses against one another on the liability issue. Buyers will be the illegal emitters. They are the ones that can best remedy the environmental injury created by feigned emission reductions at sellers' facilities. Rather than allowing buyers to use the threat of a guaranteed lawsuit as leverage against potential sellers, Mr. Panasiti proposes that the District also hold buyers accountable for unauthorized sales. Imposing fines on buyers or enjoining their use of purchased credits possibly would prevent the unwarranted emissions rather than the District merely recovering a fine from the unjustly enriched sellers.<sup>43</sup> Also, by sanctioning buyers for sellers' fraud, the District could even deter unauthorized sales, because buyers would have an incentive to conduct due diligence investigations before contracting with potential sellers. For these reasons, the District would be better-advised to retain authority to fine buyers or to cancel RTC trades and leave buyers with contract remedies against defrauding sellers.<sup>44</sup>

In the effort to balance industry's desire for a free, unencumbered market with minimal transaction costs, against the need for effective enforcement, the District unwisely has chosen to design RECLAIM to favor free market economics. As shown in the next part, the lack of District scrutiny over trades and of buyer accountability will allow projected air toxics impacts and resulting harm to public health.

### III.

#### RECLAIM AND REDISTRIBUTION OF ROC EMISSIONS: AGGRAVATING TOXICS "HOT SPOTS" PROBLEMS

Environmentalist groups have challenged the District on several occasions to address the concern that RECLAIM implementation will significantly impact air toxics emissions. The following discussion summarizes the major flaws in RECLAIM implementation.<sup>45</sup>

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43. *Accord The View of the Digest: RECLAIM May Be the Best of Times, or the Worst of Times . . .*, S. CAL. ENVTL. DIG., Sept. 1, 1992, at 8, 9 ("[V]iolations may be discovered two or three years after they occurred. The agency, of course, will get the fine. But there is no actual air pollution protection for the community.").

44. Interview with Joseph Panasiti, Senior Deputy District Prosecutor, SCAQMD, in Diamond Bar, CA (Sept. 17, 1992).

45. The discussion *infra* part IV explains and criticizes the District's responses to the environmentalists' concerns.

### A. Trading in ROCs Amounts to Trading in Air Toxics

"The ROC category contains a wide variety of toxic substances . . . ."<sup>46</sup> Hundreds of ROC compounds are also recognized air toxics. For example, Congress has recognized through legislation that the following ROCs are toxic: benzene, toluene, xylene, glycol ethers, gasoline vapors, formaldehyde, acetaldehyde and perchloroethylene.<sup>47</sup> In addition, Proposition 65 has identified as toxic many other ROCs.<sup>48</sup> Despite the large overlap between ROCs and air toxics, the District has insisted repeatedly that there will be no trading in air toxics.<sup>49</sup>

#### 1. No Differentiation Among ROCs

The District's assurance of no toxics trading is disingenuous, because RECLAIM will not differentiate emission "reduction credits [RTCs] for ROG . . . by compound."<sup>50</sup> In other words, rather than insist upon one-for-one compound exchanges, the District will ignore the chemical composition of ROCs being traded. Buyers and sellers will trade in RTCs of generic "ROC," meaning that sellers will be able to reduce emissions of different ROC compounds than those for which buyers later increase or maintain emissions. The lack of differentiation among ROCs will afford RTC buyers and sellers unbounded flexibility.

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46. Comment Letter #2: Labor/Community Watchdog 1 (June 25, 1992) [hereinafter Labor/Community Watchdog Comment], in SCAQMD, FINAL ENVIRONMENTAL IMPACT REPORT FOR: PROPOSED 1991 AQMP AMENDMENTS chap. 2 (July 1, 1992) [hereinafter FEIR] (comment by the Labor/Community Strategy Center on the Draft Environmental Impact Report for: Proposed 1991 AQMP Amendments ("DEIR")); Comment Letter #1: Citizens for a Better Environment 11 (June 25, 1992), in FEIR, *supra*, [hereinafter CBE Comment] (comment on the DEIR) ("Many reactive organic gases are also recognized as toxic.").

47. See Labor/Community Watchdog Comment, *supra* note 46, at 1; Toxics Release Inventory, 1990 CERA Title III database.

48. See Office of Environmental Information, California Environmental Protection Agency ("Cal-EPA"), Chemical Cross-Index (updated May 1992) (available in hardcopy from the Office of Environmental Information, Cal-EPA). Also known as the "Chemical List of Lists," this database cross-indexes hazardous chemicals regulated by state and federal agencies, including Proposition 65 chemicals and chemicals regulated under other toxics programs.

49. For example, in its recommendations for RECLAIM, the District stated that "[s]ources will not be allowed to trade toxic air contaminants. Additionally, sources will not be allowed to create a toxic health risk as a result of trading activity." RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 1-7. More recently, the District proposed to treat air toxics as a "non-RECLAIM pollutant," which it defines as "those pollutants that are not tradable in the RECLAIM program." Proposed District Rule 2000(b)(47) (Mar. 3, 1993).

50. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at EX-4.

However, ignoring differentiation among ROCs for trading purposes also means ignoring the differing toxicity levels among the ROCs being traded. The District will not regulate, or even monitor, the toxicity level of ROC compounds in emissions reduced in sellers' locales and increased or maintained in buyers' locales. This approach makes toxicity irrelevant to trading; toxicity will simply be an externality of the ROC trading market. By allowing undifferentiated trading in ROCs, RECLAIM will allow trading in air toxics, notwithstanding the District's contrary representations.

## 2. Air Toxics Trading Allowed Among Current High-Emitters

Under the proposed scheme, RECLAIM will allow trading by those very facilities that currently pose significant air toxics risks to Basin residents and workers. The District has identified many prospective RECLAIM ROC facilities as dangerously-high air toxics emitters and has attributed health risks primarily to the very processes and toxic ROC chemicals that these facilities currently employ. According to one estimate, by June, 1992, the District had designated approximately 248 prospective RECLAIM ROC facilities under the then-envisioned ROC market as high priority toxics hot spot facilities, and had required that those facilities prepare health risk assessments ("HRAs").<sup>51</sup> Based upon the total HRAs that the District had received by the same date, the District concluded that air toxics emissions from twenty-seven facilities posed a "significant" health risk.<sup>52</sup> These problem facilities represent a preliminary indicator of the significant health risks from prospective RECLAIM ROC facilities.<sup>53</sup>

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51. CBE Comment, *supra* note 46, at 12 (referring to the District's designations under the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588), by which certain facilities must prepare health risk assessments ("HRAs")). This rule is discussed *infra* text accompanying notes 113-16. Even though the District has since decided to create a smaller ROC market, the estimate serves as a general indication that many problem facilities exist in the Basin.

52. "[Twenty-one] facilities emitted air contaminants resulting in a cancer risk in excess of [ten excess cancer cases in a million exposed persons] . . . [and] 6 facilities emit[ted] non-carcinogens having a hazard index in excess of 1 . . . ." Response to Comment Letter #1: Citizens for a Better Environment, *in* FEIR, *supra* note 46, at 2-1-1, 2-1-7 [hereinafter Response to CBE Comment]. The term "hazard index" incorporates various indicia which together represent the health risk posed by non-carcinogens, whereas the term "excess cancer cases" reflects the health risk from carcinogens.

53. It would be misleading and short-sighted to compare the 27 problem HRAs to the total number of HRAs reviewed. According to staff in the District Toxics Division, the District, by June 1992, had requested 300 facilities to submit HRAs and had preliminarily reviewed 143 submitted HRAs. Many HRAs fail the preliminary review due to

Even more indicative of risks from these facilities, the District found that "[t]he major pollutants contributing to these [health] risks include benzene, hexavalent chromium, methylene chloride, formaldehyde, styrene, ammonia and lead."<sup>54</sup> Among these seven toxic pollutants, benzene, methylene chloride, formaldehyde and styrene are all ROCs.<sup>55</sup> "The processes associated with the release of these [seven] pollutants include refining, metal finishing, degreasing, painting, oil and gas production, petroleum operations, and resin manufacturing."<sup>56</sup> All of these processes are ROC-emitting processes. The District plans to exclude from RECLAIM only refining, oil and gas production and petroleum operations. Therefore, prospective RECLAIM ROC facilities as a group not only emit the very pollutants that drive Basin health risks, but also operate the most air toxics-sensitive processes. Based on this evidence, RECLAIM trading will allow, at best, unmonitored, non-enjoinable air toxics emissions<sup>57</sup> and, at worst, significant air toxics impacts, including new and aggravated toxics hot spots.<sup>58</sup>

### 3. No Geographic or Seasonal Constraints on Trading

RECLAIM will not contain any quarterly limits on trading: sellers will be able to sell RTCs at any time of the year, and buyers will be able to use the purchased credits at any time to increase their emissions or to forego emission reductions. This lack of seasonal constraints might not be problematic with respect to ozone, which is formed<sup>59</sup> predominantly during the summer, because the District expects that, even without a bar against trading non-summer ROC

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incorrect analysis methodologies, and facilities need to revise them. For example, of the 143 HRAs received by November 1991, the District requested revision of 46% of them. See OFFICE OF PLANNING AND RULES, SCAQMD, 1991 ANNUAL REPORT ON AB 2588 AIR TOXICS HOT SPOTS RISK ASSESSMENT 11 tbl. 3-2 (Nov. 12, 1991) [hereinafter 1991 ANNUAL REPORT ON AB 2588]. Also, of the 143 received HRAs, the District forwarded and planned to forward only 61 HRAs to the state health agency for its review. *Id.* The state agency subsequently requested revision of every HRA submitted, having approved none of them. Telephone Interview with Pierre Sycip, Air Quality Specialist, SCAQMD (June 15, 1993).

54. 1991 ANNUAL REPORT ON AB 2588, *supra* note 53, at 1 (also identifying lead, a non-ROC compound, as a chemical driving the health risks).

55. Hexavalent chromium, lead and ammonia are not ROCs: the first two are metals and the last does not contain carbon.

56. 1991 ANNUAL REPORT ON AB 2588, *supra* note 53, at 1.

57. RTC buyers will not be held accountable for illegal emissions. See *supra* text accompanying notes 35-37.

58. See discussion *infra* part III.B-C regarding likely ROC emissions redistribution under RECLAIM.

59. The oxidation of NO<sub>x</sub> and ROCs creates ozone.

emissions into the summer ozone season, facilities might nonetheless make more emission reductions in the summer months than in other quarters of the year.<sup>60</sup> Therefore, ROC emission reductions might occur in the summer absent limitations on excessive summer emissions.

Unfortunately, by focusing on the problems of peak ozone formation, the District has ignored the need to control air toxics emissions in the winter, when toxics concentrations pose the largest problems. "Toxic organics and ROG concentrations are generally higher in the winter than in the summer . . . . While ozone peaks in the summer, toxics peak in the winter."<sup>61</sup> Without seasonal limitations, "[t]rading . . . from summer emission reductions (or credits generated in summer) to allow increases or prolonged emissions in winter of ROG-toxics would exacerbate [winter] toxic exposures."<sup>62</sup> Quarterly trading limits could prevent ROC emissions dumping in winter months by ensuring trading consistency among quarters,<sup>63</sup> but the District decided to forego such limits. Despite the apparent air toxics impacts, sellers will be able to trade summer toxic ROC emissions for buyers' winter toxics emissions.

Furthermore, RECLAIM will allow RTC sales to buyers located anywhere in the Basin, because RECLAIM will not contain any relevant geographic constraints on trading.<sup>64</sup> This lack of regulation raises the specter of new and aggravated toxic hot spots. By foregoing geographic constraints in RECLAIM, the District will not prevent an economics-driven aggravation and redistribution of toxics hot spots.

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60. High emissions in the first three quarters of the year will mean that facilities must reduce more emissions during the fourth quarter to avoid exceeding their annual emission caps. Given this expectation of fourth-quarter reductions, the District staff has proposed that the compliance year begin on October 1 and end on September 30, Proposed District Rule 2004(a)(1) (Nov. 3, 1992), so that end-of-the-year reductions will occur during the summer months.

61. CBE Comment, *supra* note 46, at 15-16 (citing SCAQMD, REVISED DRAFT ENVIRONMENTAL IMPACT REPORT FOR: PROPOSED 1991 AQMP AMENDMENTS 3-4 (May 13, 1992) [hereinafter "DEIR"] (the District documenting higher toxic concentrations in the winter)); see TOXICS "HOT SPOTS" DATA, *supra* note 12, at 4-12, 4-13 tbl. 4-6 (showing higher concentrations in the winter of the following toxic ROCs: benzene, carbon tetrachloride, perchloroethylene, toluene and 1,1,1-trichloroethane).

62. CBE Comment, *supra* note 46, at 16.

63. Response to CBE Comment, *supra* note 52, at 2-1-11.

64. As the sole geographic constraint in RECLAIM, the District proposes a limitation on trading into ozone sensitive areas in the event a facility wants to increase its emissions beyond the level of a preceding compliance year. Proposed District Rule 2005(h) (Nov. 3, 1992).

## B. *Redistribution of ROC Emissions Under RECLAIM*

Under RECLAIM, “the distribution of the . . . emissions among the various source categories and locations are [sic] projected to be different” than under existing AQMP rules.<sup>65</sup> As compared to projected emission concentrations under existing rules, the District predicts that ROC emissions will shift to the east of the Basin.<sup>66</sup>

As a basis for predicting an eastward shift of ROC emissions, the District explains that facilities on the western side of the Basin, especially in Los Angeles County, probably will achieve the majority of emission reductions and therefore will be the main RTC sellers, whereas facilities in the east will be mostly credit buyers.<sup>67</sup> Most of the Basin’s older facilities are located in the western part of the Basin, while new facilities are located and likely will be located in the east.<sup>68</sup> The District’s theory is that older, higher polluting and less controlled facilities, will have more flexibility to reduce emissions to become RTC sellers than will newer facilities.<sup>69</sup> Despite the high costs of retrofit technology, older facilities likely will reduce emissions to be able to sell RTCs, because the Clean Air Act requires older facilities to install such technology<sup>70</sup> and because they have more emissions to reduce. By contrast, newer facilities are and will be constructed with best available control technology (“BACT”), and therefore, will view installing additional controls as economically less attractive than becoming RTC buyers.<sup>71</sup>

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65. CBE Comment, *supra* note 46, at 13 (quoting the District in the DEIR, *supra* note 61, at 3-3).

66. SCAQMD, WORKING PAPER #5: AIR QUALITY ASSESSMENT AND SOCIO-ECONOMIC IMPACTS — “IMPLEMENTATION: IMPLICATIONS FOR THE BASIN” 3-1 (Jan. 1992) [hereinafter WORKING PAPER #5]; RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 6-3 to 6-4 (also stating that NO<sub>x</sub> emissions will shift to the east). Also, the District predicted the following ROC emission redistributions based on a larger universe of RECLAIM ROC sources than currently envisioned: (1) 45% of the Basin will suffer increased ROC emissions in 1997; (2) 34% will suffer increased ROC emissions in the year 2000; and (3) aromatic hydrocarbon emissions, which include recognized toxic air contaminants such as benzene and toluene, will increase. WORKING PAPER #5, *supra*, at 3-7, F-10, F-11. Although these predictions do not reflect the current RECLAIM scheme, they illustrate problems attendant to expanding the RECLAIM market and forming comparable ROC emissions trading programs.

67. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 6-3 to 6-4.

68. *Id.* at 6-4 (projecting that the eastern part of the Basin will be the area of future development).

69. *Id.* at 6-3 to 6-4.

70. 42 U.S.C. § 7502(c)(1) (Supp. III 1991) (requiring Reasonably Available Control Technology (“RACT”) for all existing sources in a nonattainment area).

71. See RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at 6-4 (less likelihood of further controls). The cost of additional controls becomes much higher as excess emissions become increasingly controlled, which they are under BACT.

There is an obvious problem with the District predicting emission reductions and RTC sales by the older, dirtier facilities. At least in the short run, cleaner facilities will most likely be the sellers, because the District plans to credit newer facilities for their past emission reduction accomplishments in an effort to address their equity objections. Rather than setting a newer facility's baseline at the level of actual emissions, the District plans to create an inflated baseline to reward those facilities that have spent millions of dollars to install BACT and achieve emissions control that older, dirtier facilities have not accomplished.<sup>72</sup> With inflated baselines, cleaner facilities will be able to sell RTCs that reflect paper ROC emission reductions rather than actual reductions. Also, the District proposes a less steep emissions reduction rate for certain cleaner facilities, including a renewable, one-year, zero reduction rate for "Super Clean Facilities"<sup>73</sup> and a six-year exemption from emission reductions for all BACT facilities.<sup>74</sup> These proposals would enable newer facilities to over-control emissions easier than older facilities and thereby become RTC sellers.<sup>75</sup> Under either scenario, ROC emissions might remain high in the west rather than shift to the east, at least in the short run.

Even assuming that older, dirtier facilities install additional ROC emission controls to become RTC sellers either in the short or the long run, such controls likely will not amount to toxic ROC emission controls. Controlling ROC emissions by BACT or other con-

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72. The emissions baseline for BACT facilities will equal the highest emissions year between 1989 and 1991, increased by any emission reduction credits earned under New Source Review. Proposed District Rules 2003(b)(1)(B), 2003(b)(3)(A)-(C) (Mar. 7, 1993). The District proposes a similar upward baseline adjustment for facilities that switch from emitting ozone depleting compounds to emitting ROCs. Proposed District Rule 2003(c) (Mar. 7, 1993).

73. Proposed District Rule 2003(d)(5) (Mar. 7, 1993); see Proposed District Rule 2001(d) (Mar. 7, 1993) (defining "Super Clean Facility" designation based on emissions per manufacturing employee).

74. Proposed District Rule 2003(d)(3) (Mar. 7, 1993); SCAQMD, RECLAIM PROGRAM AND RULE DEVELOPMENT REPORT 2-11 (Mar. 8, 1993). The District will need to adopt these adjustments to satisfy industry. In particular, the Regulatory Flexibility Group, an influential industry coalition of potential RECLAIM facilities, insists that equity means "sources that have been relatively uncontrolled should be required to face a higher rate of progress than sources that already have achieved significant reductions." *Regulatory Flexibility Group: In Order for RECLAIM to Be Fair the Emissions Cap Must Be Equitable*, S. CAL. ENVTL. DIG., Nov. 1992, at 10.

75. Also, so long as the cost of doing business in California remains high, few new facilities will be constructed, meaning that certain dirty facilities likely will need to buy RTCs because of the need to consummate trades, i.e. to have trading partners. Thus, while several of the dirtier facilities will achieve substantial reductions by installing retrofit controls, others will become RTC buyers.



trol equipment is not necessarily equivalent to controlling toxic ROC emissions. A facility can reduce nontoxic ROC emissions while maintaining or even increasing toxic ROC emissions and still achieve overall reductions in total ROC emissions. Especially under RECLAIM, facilities likely will choose to control nontoxic ROCs, because toxics control equipment (such as carbon absorption equipment) tends to be more costly. Facilities expectedly will comply with their ROC annual emission caps by "using the least cost compliance option first,"<sup>76</sup> causing, for example, less frequent use of carbon absorption equipment under RECLAIM than exists currently under the 1991 AQMP.<sup>77</sup> Since RECLAIM will not require facilities to install any expensive toxics-control equipment,<sup>78</sup> toxic ROC emissions very likely will increase at the site of ROC emissions controllers, be they older or newer facilities.<sup>79</sup>

### C. Toxic ROC Emissions Might Concentrate in Existing and New Toxics Hot Spots

The District expects RECLAIM will cause overall increases in toxic ROC emissions in the Basin into the next decade.<sup>80</sup> Toxics hot spots are those areas of the Basin where air toxics emission levels are notably higher and therefore more dangerous than in other areas.<sup>81</sup> Whether the expected redistribution of ROC emissions will exacerbate toxics hot spots in the Basin or create new hot

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76. DEIR, *supra* note 61, at 3-23.

77. *Id.*; CBE Comment, *supra* note 46, at 14-15 (carbon absorption equipment currently a common means of capturing toxic ROCs).

78. District Rule 1401 only mandates best available control technology for toxics ("T-BACT") when a new or modified facility's emissions exceed a specified risk level. *See infra* notes 123-24 and accompanying text. However, in the future, federal rules might require installing toxics control equipment. *See* discussion *infra* part IV.B.1 regarding section 112 of the Clean Air Act.

79. *See generally* CBE Comment, *supra* note 46, at 14 (predicting toxic ROC emission increases due, in part, to facility choice of the least costly control equipment).

80. As compared to existing emissions of 25 toxic compounds, the District attributed to RECLAIM (for a larger universe of ROC sources than currently envisioned) total emission increases of 8.127 tons per day in 1994, 9.443 tons per day in 1997 and 5.793 tons per day in 2000. *See* Table 1: Comparison of Toxic Emissions by Compounds (available from SCAQMD, in Diamond Bar, CA) (District toxic impact analysis conducted for response to comments on the FEIR). In particular, as to benzene, methylene chloride and formaldehyde, which are three of the four ROCs that the District identified as driving significant cancer and non-cancer health risks in the Basin, the District predicted notable emission increases at least through the year 1997. *Id.*; *see also supra* text accompanying notes 54-55. Although the numbers no longer apply to the current RECLAIM scheme, similar emissions redistribution, albeit on a smaller scale, seem likely.

81. *See supra* text accompanying notes 12-14.

spots cannot be predicted definitively. Although RECLAIM may reduce overall smog emissions, the District concedes that "this program has the potential to create toxic hot spots if owners or operators of affected facilities elect to comply with the requirements of the . . . program by purchasing emission reduction credits [RTCs]."<sup>82</sup> According to the District, "[t]oxic emissions could increase at a [purchasing] facility as a result of an emissions trade,"<sup>83</sup> and foregone air toxic emission reductions, the effective equivalent to air toxic emission increases, might also occur under RECLAIM.<sup>84</sup>

Several bases exist for anticipating toxic ROC emission increases in new and aggravated toxics hot spots. First, trading ROCs of high toxicity for ROCs of low toxicity might create or prolong toxics hot spots.<sup>85</sup> Since RECLAIM will not differentiate among ROCs or otherwise give facilities any incentive to reduce emissions of the more highly toxic ROCs before the less toxic ROCs, RTC trading might aggravate toxics hot spots.

Second, due to trading, existing toxics hot spots will likely persist for longer time periods or shift to new parts of the Basin. Assuming that RTC buyers are located in the west, where toxic ROC emissions are already high,<sup>86</sup> some facilities will use purchased RTCs to maintain existing ROC emissions, both toxic and nontoxic, and thus cause hot spots and health risks to persist.<sup>87</sup> Alternatively, RTC buyers will increase ROC emissions, thereby aggravating existing hot spots. On the other hand, assuming that RTC buyers are located in the east, as the District predicts and as is most likely in the long run, their use of purchased credits will create new hot spots in currently less exposed areas of the Basin. Neither result is desirable.

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82. DEIR, *supra* note 61, at 3-12.

83. WORKING PAPER #5, *supra* note 66, at 3-10.

84. Response to CBE Comment, *supra* note 52, at 2-1-7. However, the District claims, based on review of HRAs to date, that this possible adverse effect will occur only "if RECLAIM is not appropriately designed," and even so, "is likely limited to a few specific pollutants and types of sources." *Id.* at 2-1-8. The conclusion is disingenuous, because the District's review has shown that prospective RECLAIM ROC facilities employ the very processes and chemicals that drive the significant health risks. See discussion *supra* part III.A.2. At a minimum, the District needs to analyze further RECLAIM's likely impacts. See also discussion *infra* part IV regarding the District's "commitment" to design RECLAIM appropriately.

85. CBE Comment, *supra* note 46, at 16.

86. See *supra* notes 67-75 and accompanying text, explaining why, at least in the short run, ROC emissions might not shift to the east.

87. See CBE Comment, *supra* note 46, at 15.

Up to this point, this discussion of potential toxic ROC emission increases and foregone reductions has focused on primary effects of RTC trading. Also significant are likely secondary effects of trades for nontoxic ROC emissions. A RECLAIM buyer facility, in using an RTC to increase its production and concomitant ROC emissions, might obtain additional inputs from a non-RECLAIM supplier facility<sup>88</sup> that emits air toxics during its manufacturing. Therefore, even though the RTC user would not increase its toxic ROC emissions, a non-RECLAIM source could cause a net increase of toxic ROC emissions due to an RTC trade. Such secondary effects of RTC trading might thereby exacerbate existing toxics hot spots problems or create new ones, depending upon the facility's location in the Basin.<sup>89</sup>

Although evidence of adverse impacts from RECLAIM is not conclusive, the potential for such impacts amply warrants regulatory attention. Despite the admitted possibility that RECLAIM will reconcentrate air toxics in existing hot spots and create new hot spots, the District has promised industry that it will not scrutinize trading. Unfortunately, by omitting not only geographic and seasonal constraints, but also pre-approval of trades, monitoring of toxicity and differentiation among ROCs being traded, the District is designing RECLAIM as a free market which will acquiesce in worst-case scenarios. Therefore, RECLAIM's acceptability depends on the District's ability to otherwise prevent market forces from allowing the worst-case scenarios to jeopardize the health of Basin residents and workers.

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88. For example, a facility that emits less than four tons of ROCs per year will be a non-RECLAIM source. See Proposed District Rule 2001(b) (May 21, 1993) (relating to NO<sub>x</sub> and SO<sub>x</sub> sources only; the District will draft a similar provision relating to ROC sources). Also, combustion equipment and fugitive emission sources will not be part of the ROC market. Telephone Interview with Karl Lany, Staff Specialist, SCAQMD (May 18, 1993).

89. Including fugitive emissions in an emissions trading program, as the District previously proposed for RECLAIM, can further aggravate air toxics problems. Fugitive emissions pose a greater health risk than stack emissions due to their release at or near ground level. Comment Letter #1: Adams and Broadwell 2-3 (Apr. 27, 1992), *in* DEIR, *supra* note 61, app. B (comment on behalf of the Southern California Pipe Trades District Council 16 pursuant to notice of preparation of the DEIR); CBE Comment, *supra* note 46, at 16. Also, fugitive emissions are more costly to control than stack emissions, thereby making under-control of fugitive emissions likely. *Id.*

## IV.

THE DISTRICT'S SOLUTION TO RECLAIM'S SIGNIFICANT  
AIR TOXICS IMPACT: RELIANCE UPON  
EXISTING AND PROPOSED TOXICS  
RULES

The District repeatedly offers the following response to environmentalists' concerns over RECLAIM's potential to aggravate toxics hot spots: "Site-specific toxic emissions will not be allowed to increase as a result of trading [RTCs]."<sup>90</sup> Also, the District asserts that the potential for facilities to forego air toxics emission reductions by buying credits, thereby aggravating local air toxics problems, will be very limited.<sup>91</sup> The District's asserted reasons for confidence in RECLAIM are that RECLAIM will contain appropriate rules and design features to prevent such impacts,<sup>92</sup> and "[f]acilities will be required to comply with present and future source specific regulations for toxic emissions."<sup>93</sup> As for its so-called commitment to address air toxics in RECLAIM, the District has explicitly represented, to the contrary, that air toxics is a non-RECLAIM issue.<sup>94</sup> Furthermore, with regard to required compliance with toxics rules, the District must be able to prove that the rules substantively address fully the air toxics problems raised by RECLAIM and that the rules are enforceable despite the economic incentives created by the RECLAIM trading market.

A. *RECLAIM Will Encourage Toxics Rules Violations*

As the value of a prohibited activity increases, the incidence and sophistication of cheating increases. RECLAIM will increase the value of ROC emissions, including toxic ROC emissions, by changing the ability to emit ROCs into a commodity, the RTC. Facilities that can over-reduce ROC emissions will be able to sell RTCs for profit. Therefore, RECLAIM facilities will find imaginative ways to feign ROC emission reductions in order to sell RTCs when they increase their toxic ROC emissions. By failing to actually reduce ROC emissions, these facilities will create substantial air toxics risks

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90. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at EX-4.

91. Response to CBE Comment, *supra* note 52, at 2-1-7. The potential for foregone emission reductions will be limited to a few specific toxic pollutants and types of sources. *Id.*

92. *Id.* at 2-1-5 to 2-1-7. The theoretical possibility of foregone air toxics emission reductions will be eliminated by a properly designed program. *Id.* at 2-1-7.

93. RECLAIM SUMMARY RECOMMENDATIONS, *supra* note 16, at EX-4.

94. *See supra* note 49 and accompanying text, and part III.A.1.

in violation of existing or proposed toxics rules. RECLAIM's design will allow and actually encourage facilities to earn profits by intentionally maintaining illegal toxic ROC emission levels, because the market will credit undifferentiated ROC emission reductions and allow undifferentiated ROC emission increases. By disregarding air toxics impacts of RTC trades, RECLAIM will create an incentive for toxics rules violations. For this reason, a general incompatibility exists between an emissions trading program that allows air toxics impacts, on one hand, and actual air toxics control, on the other hand.<sup>95</sup>

Nonetheless, this incompatibility between the market and toxics rules can be eliminated by modifying the rules or creating new rules that are severe enough and triggered often enough to deter cheating. If facilities know that the District will detect illegal toxic ROC emissions and will impose timely penalties that exceed the profits from RTC trades, then facilities will not have the described incentive to violate the rules. On the other hand, if the toxics rules require only infrequent reporting and analysis of toxic ROC emissions, or if facilities know that the District will need up to one year to review for rule violations, nothing will stop them from seeking short-term profits and risking penalty assessments in the future. Therefore, only appropriately drafted toxics rules and timely enforcement can neutralize the perverse incentives created by RECLAIM.

### B. *Background Federal and State Toxics Rules*

Toxics rules at the federal and California state levels are currently in flux. The federal rules will require reductions of extensive air toxics emissions from Basin facilities beginning in the next three to eight years. The state rules currently require notification of significant health risks from air toxics emissions (but no Basin facility has yet provided notice), and emissions control of a few specific sources. At least in the short run, neither the federal nor the state regulatory program will effectively address RECLAIM's likely adverse toxics impacts. Neither is "specifically designed to address local 'hot spots' of risk that can occur near individual sources. Both programs take considerable time to develop and implement control measures. In addition, neither program explicitly considers the characteristics of the District's air toxics problem which may be

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95. Interview with Joseph Panasiti, Senior Deputy District Prosecutor, in Diamond Bar, CA (Sept. 17, 1992).

distinctive."<sup>96</sup> Finally, a new state program which requires health risk reductions has come into effect only this year.

1. Federal Law: The Clean Air Act Requirement for Maximum Air Toxics Emissions Control

Pursuant to the Clean Air Act Amendments of 1990, section 112 empowers the EPA to establish national emission standards for new and existing source categories of 189 listed hazardous air pollutants ("HAPs").<sup>97</sup> EPA-promulgated emission standards, or NESHAPs, will initially be technology-based rather than risk-based.<sup>98</sup> NESHAPs for "major sources," namely sources that emit over ten tons per year ("tpy") of any HAP or twenty-five tpy of any combination of HAPs,<sup>99</sup> and for smaller emitters, or "area sources,"<sup>100</sup> that present the greatest health threat,<sup>101</sup> must require the maximum degree of HAP emission reductions achievable considering cost, but no "less stringent than the emission control that is achieved in practice by the best controlled similar source."<sup>102</sup> In other words, performance standards must require regulated facilities to control emissions as well as the best performer in the same industrial category.<sup>103</sup> As of this writing, EPA has published a proposed Hazardous Organic NESHAP ("HON") for hazardous organic chemicals but has not promulgated any standards.<sup>104</sup>

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96. DRAFT WORKING PAPER FOR PROPOSED RULE 1402, ETC., *supra* note 4, at 1 (discussing the gaps in the federal NESHAPs program and state AB 1807 program, both discussed *infra* part IV.B.1-2.a, as reasons for creating a District rule to control existing sources of air toxics emissions).

97. 42 U.S.C. § 7412(b)-(d) (Supp. III 1991).

98. *See id.* § 7412(d) (maximum achievable control technology ("MACT") requirements); *id.* § 7412(f) (residual risk standards to protect public health and the environment).

99. *See id.* § 7412(a)(1).

100. *See id.* § 7412(a)(2).

101. *See id.* § 7412(c)(3), (k)(3)(B) (requiring EPA listing of all area source categories that together represent 90% of area source emissions of the 30 hazardous air pollutants ("HAPs") that present the greatest threat to public health in the largest number of urban areas).

102. *Id.* § 7412(d)(2), (3).

103. However, MACT standards for existing sources may be less stringent than standards for new sources: for existing sources, MACT means the controls achieved by the average of the top 12% of sources, whereas for new sources, it means the controls achieved by the top performers. 42 U.S.C. § 7412(d)(3). Also, existing sources need not comply with MACT requirements until three years after promulgation as compared to new sources, which must comply immediately. *See id.* § 7412(i).

104. National Emission Standards for Hazardous Air Pollutants for Source Categories, etc., 57 Fed. Reg. 62,608 (1992) (to be codified at 40 C.F.R. pt. 63) (proposed Dec. 31, 1992).

The District plans to implement a Title V permit program under which it would enforce future MACT standards through District-issued RECLAIM permits in lieu of federal MACT enforcement through federally-issued permits.<sup>105</sup> The only way that the District could implement a Title V permit program without a NESHAPs screening process to complement RECLAIM would be to obtain an exemption from NESHAPs. If the District could demonstrate stringency equivalency between its proposed toxics rules and the federal requirements as to each industry category, Basin facilities would need to comply only with the District rules. Proving equivalency would mean applying engineering models to compare risk-based requirements to the federal technology-based requirements.<sup>106</sup> Any facilities in a source category for which the District could not demonstrate equivalent levels of control would need to comply with the more stringent federal requirements notwithstanding compliance with the District rules and despite inconsistencies between the rules. Those facilities would hold potentially conflicting District and federal permits for the same operations. To avoid this possibility, the District intends to adopt the federal rules and enforce them against RECLAIM facilities.

Allan Zabel, associate regional counsel for EPA Region IX, maintains that enforcing NESHAPs will require the District to screen for violations before each RTC trade, because the alternative — automatic approval of trades — makes no sense.<sup>107</sup> The EPA cannot allow the District, as delegated NESHAPs enforcer, to turn a blind eye to RECLAIM facilities that violate MACT standards by trading, after which the EPA would need to punish the violations. For RECLAIM to exist after promulgation of MACT standards,

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105. See Proposed District Rule 2006(b)(4)(E) (May 20, 1992) ("Each Facility Permit shall include . . . applicable federal Clean Air Act Title V requirements . . ."). Pursuant to Clean Air Act Title V, the District and ARB are currently developing a state operating permit program to submit to EPA for approval by November 15, 1993. RECLAIM PROGRAM AND RULE DEVELOPMENT REPORT, *supra* note 74, app. K at K-2. If approved, the permit program would provide for permitting of NESHAPs-regulated sources. State Operating Permit Programs, 57 Fed. Reg. 32,295, 32,297 (1992) (to be codified at 40 C.F.R. § 70.3(a)(3)) (proposed July 21, 1992) (An approved state program must cover any source subject to a standard or other requirement under Clean Air Act section 112.).

106. Assuming that MACT for the synthetic organic chemical manufacturing industry ("SOCMI") requires SOCMI to control 98% of emissions of any of the 189 listed HAPs, the District would need to prove that the residual health risk allowed under its rules of a certain number of excess cancer cases and non-cancer effects amounts to 98% HAPs emissions control by SOCMI.

107. Telephone Interview with Allan Zabel, Associate Regional Counsel for EPA Region IX (Nov. 10, 1992).

the District will need to pre-approve facilities' proposed air toxics emissions before amending any RECLAIM facility permit.<sup>108</sup>

Despite uncertainties over the future content of federal standards, EPA staff agrees that RECLAIM facilities will not be allowed to buy RTCs to trade their way out of federally-required emissions control. According to Mr. Zabel, the federal rules will impose a big, but unavoidable, burden on RECLAIM.<sup>109</sup> In fact, RECLAIM facilities might violate NESHAPs in a vast majority of their RTC trades, insofar as 149 listed HAPs are organic compounds.<sup>110</sup> RECLAIM facilities subject to MACT standards requiring emission reductions of ROCs will not be able to purchase RTCs for ROC emissions, even though RECLAIM would allow the purchase. Furthermore, facilities that earn RTCs for any reductions that exceed RECLAIM-required reductions will be able to sell the RTCs only to facilities that either are not covered by any MACT standard or intend to use the credits as an offset against RECLAIM-required reductions beyond MACT-required reductions. In this regard, NESHAPs enforcement inevitably will constrain RTC trading of ROC emissions. The question remains whether such constraints will be sufficient to deter RECLAIM-driven air toxics impacts, and if so, will still allow a viable trading market.

## 2. State Law

### *a. AB 1807: Airborne Toxic Control Measures*

Under the state Toxic Air Contaminant Identification and Control Program of 1983 (hereinafter "AB 1807"), the California Environmental Protection Agency ("Cal-EPA") must identify toxic air

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108. *Id.*

109. *Id.*

110. Telephone Interview with Dr. Jan Meyer, Environmental Engineer for EPA Office of Environmental Planning and Standards (Dec. 23, 1992). The extent to which the 149 organic compounds are ROCs depends upon interpretation of the District's definition of ROC, which is "any volatile or gaseous chemical compound containing the element carbon." Proposed District Rule 2000(b)(52) (Nov. 3, 1992). The District staff apparently has not determined the extent of overlap between ROCs and HAPs. Furthermore, the initial list of 174 HAP source categories includes the following: six fuel combustion categories, oil and natural gas production, petroleum refineries and aerospace industries. Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990, 57 Fed. Reg. 31,576, 31,591-31,592 (1992) (proposed July 16, 1992). Even though of the forgoing listed categories only aerospace industries remain part of the currently-envisioned RECLAIM ROC market, the list illustrates the challenges attending expansion of the ROC market or creation of other ROC emissions trading programs.



contaminants ("TACs") and adopt airborne toxic control measures ("ATCMs"), which are technology-based standards to reduce emissions to the lowest level achievable through best available control technology. In ten years, Cal-EPA has identified eighteen TACs and has promulgated only seven ATCMs for which the District has adopted implementing rules.<sup>111</sup> The District concedes that AB 1807 provides incomplete protection from health risks of toxic air contaminants.<sup>112</sup>

*b. AB 2588: Notification of Significant Health Risks*

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (hereinafter "AB 2588") created a program under which the District must review air toxics emission inventories, assess health risks created by high-risk facilities and require public notification of all significant risks.<sup>113</sup> The program mandates the following four-step process: (1) industrial facilities submit air toxics inventory plans for District approval; (2) facilities submit air toxics inventory reports and biannual updates<sup>114</sup> detailing the quantities, types and release patterns of air toxics emitted by each facility emission source; (3) the District prioritizes the facilities according to their potential to pose health risks to the surrounding community and requires high priority facilities to prepare HRAs of the impact of their air toxics emissions; and (4) based on District review of HRAs, facilities must provide notification of significant health risks. The District defines the significance level which triggers notification as a maximum individual cancer risk above ten excess cancer cases in a million exposed persons and a non-cancer exposure hazard index above one.<sup>115</sup>

Unfortunately, since the law's enactment in 1987, the District has proceeded very slowly in implementing this program. The District has received many inventory plans and reports, prioritized certain facilities and reviewed a few hundred HRAs. However, as of this

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111. REPORT ON PROPOSED RULE 1402 AND PROPOSED AMENDED RULE 1401, *supra* note 2, at 1-24 to 1-26, tbl. 1-14 (substances identified), tbl. 1-15 (District rules adopted pursuant to AB 1807).

112. *Id.* at 1-27.

113. DRAFT WORKING PAPER FOR PROPOSED RULE 1402, ETC., *supra* note 4, at 4; CAL. HEALTH & SAFETY CODE §§ 44343, 44361, 44362 (West 1993); *see* District Rule 212 (adopted Jan. 9, 1976; amended Sept. 6, 1991) (prohibiting the issuance of permits for emissions that violate AB 2588).

114. DRAFT WORKING PAPER FOR PROPOSED RULE 1402, ETC., *supra* note 4, at 5 (also noting a requirement for biannual revision of HRAs).

115. *See id.* at 4.

writing, the District has yet to develop notification procedures for dangerously-high emitters.<sup>116</sup> Accordingly, not a single Basin facility has provided risk notification to exposed persons.

RECLAIM trading that causes buyers to increase air toxics emissions might subject them to emission reporting and HRA requirements. From fear of having to notify nearby residents and workers of health risks, RECLAIM facilities arguably might avoid emitting excess air toxics. However, the District cannot rely upon the program to mitigate adverse air toxics impacts from RECLAIM. After five years of implementation, AB 2588 has yet to result in a single instance of public notification, and the District cannot predict the effects of notification.

*c. SB 1731: Air Toxics Emission Reduction Plans*

Effective January 1, 1993, state law contains risk reduction requirements which supplement AB 2588 notification requirements. Section 44391 of the California Health & Safety Code requires existing facilities identified through the AB 2588 HRA process as posing significant health risks to conduct an air toxics risk reduction audit and to develop a plan to implement risk reduction measures.<sup>117</sup> The District must define "significant risk" to implement SB 1731. When SB 1731 is triggered, it imposes minimum requirements for risk reduction plans and requires implementation of a plan to reduce existing health risk to an acceptable level within five years of plan submission to the District.<sup>118</sup> The District cannot rely upon the required risk reduction measures to mitigate projected adverse toxics impacts from RECLAIM, because it does not know whether and in what ways the requirements might deter RECLAIM facilities from jeopardizing the health of Basin residents and workers.

*C. District Rule 140I: New Source Review of Carcinogenic Air Contaminants*

At least in the short run, before the District can trust the federal and state toxics programs to control RECLAIM impacts, the Dis-

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116. Even after the District informs facilities that they need to revise their HRAs and to provide notification, facilities will have three months to comply, resulting in an additional three-month delay before exposed persons receive any notice. Telephone Interview with Pierre Sycip, Air Quality Specialist, SCAQMD (Apr. 19, 1993).

117. CAL. HEALTH & SAFETY CODE § 44391(a) (West 1992).

118. *Id.* §§ 44391(a), 44392. *But see id.* § 44391(b), (c) (exceptions to the five-year deadline).

strict must justify its assurance of adequate air toxics control exclusively by its own rules. The District places its uppermost confidence in Rule 1401: New Source Review of Carcinogenic Air Contaminants ("Rule 1401") as the insurance against increases in air toxics emissions from RECLAIM.<sup>119</sup>

### 1. As Currently Drafted, Rule 1401 Will Jeopardize Air Toxics Control

Rule 1401 limits the cancer risks that may be created by new, relocated and modified sources of certain carcinogenic air toxics. Permit applications under existing Rule 201 (permit to construct)<sup>120</sup> and Rule 203 (permit to operate)<sup>121</sup> trigger the rule.<sup>122</sup> If emissions from a piece of equipment will create a cancer risk of greater than one in one million, then a permit applicant must install T-BACT<sup>123</sup> and ensure that the risk does not exceed ten in one million, whereas if the resulting cancer risk from the equipment emissions is less than one in one million, then the applicant may obtain a permit without installing T-BACT.<sup>124</sup>

Rule 1401 applies only to the following three scenarios: (1) a facility wants to install new equipment for which it applies for both construction and use permits; (2) a facility has been operating a

119. Response to CBE Comment, *supra* note 52, at 2-1-6. The District also relies upon Rule 1303, which requires BACT for new sources, and Rule 402, which prohibits endangerment of public health. *Id.*

120. District Rule 201 requires that a person obtain prior "written authorization" in order to "build, erect, install, alter or replace any equipment, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants." District Rule 201 (adopted Jan. 9, 1976; amended Jan. 5, 1990).

121. District Rule 203 requires a written permit to operate or use the equipment for which a Rule 201 permit to construct is required. District Rule 203 (adopted Jan. 9, 1976; amended Jan. 5, 1990).

122. District Rule 1401(a) (adopted June 1, 1990; amended Dec. 7, 1990). Rule 1401 applies to all new, relocated, and modified permit units which emit carcinogenic air contaminants and which require new permits under Rules 201 or 203. District Rule 1401(a), (b). Even though section 1401(d) refers only to denial of permits to construct, section 1401(b) demonstrates the intention that the rule also apply to District Rule 203 use permit applications. District Rule 1401(b) (Permit units installed without a permit to construct are subject to Rule 1401 based on submittal, after June 1, 1990, of an application for a permit to operate.).

123. T-BACT stands for Best Available Control Technology for Toxics, meaning "the most stringent emissions limitation or control technique which: (A) has been achieved in practice for such permit unit category or class of source; or (B) is any other emissions limitation or control technique, including process and equipment changes . . . found by the Executive Officer to be technologically feasible" for that source. District Rule 1401(c)(1).

124. District Rule 1401(d).

piece of equipment without a use permit; or (3) a facility has a use permit and applies for a new permit to modify the permitted equipment physically or to modify its use.<sup>125</sup> Permit applications for any physical facility change trigger Rule 1401 review.<sup>126</sup> However, as to applications for a nonphysical facility change, a so-called "change in the method of operation of . . . an existing permit unit [i.e., equipment]," the rule does not cover an increase in production rate or in the hours of operation, "unless the increase is previously limited by an enforceable permit condition."<sup>127</sup> Raising carcinogenic air toxics emissions by increasing production or hours of operation only triggers Rule 1401 review if a facility both applies for a new use permit and violates previous permit limitations on carcinogenic emission levels by the proposed emission increase.<sup>128</sup>

The rule will not cover many RECLAIM-allowed air toxics emission increases. Though RECLAIM facility permits will contain enforceable emission limitations, such limitations will restrict ROC emissions instead of emissions of carcinogenic ROCs that are covered by Rule 1401. Even viewing ROC emission limits as Rule 1401 carcinogenic ROC emission limits, the limitations will not be "enforceable permit conditions" for which permit amendments to allow excess emissions will trigger Rule 1401. Excess emissions plus offsetting RTC purchases will constitute RECLAIM compliance, rather than an enforceable permit violation. Thus, Rule 1401 will not even apply, let alone restrict, RECLAIM facilities that purchase ROC RTCs and choose to increase production levels without applying for a permit to construct or to operate different physical equipment.<sup>129</sup>

Furthermore, Rule 1401 only regulates those new and physically modified sources that emit carcinogenic air toxics.<sup>130</sup> Moreover, in-

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125. Telephone Interview with Rob Castro, Permit-processing Engineer, Toxics Division, SCAQMD (Oct. 2, 1992).

126. District Rule 1401(c)(6) (defining "modification," in part, as any physical change in, or addition to, an existing permit unit that requires construction and/or use permits).

127. District Rule 1401(c)(6)(A)-(B) (listing exclusions from the definition of "modification").

128. *See id.* Permit engineers interpret the phrase "unless previously limited by an enforceable permit condition" to refer to a permit condition that limits emissions of the specified carcinogenic air toxics, rather than limiting emissions generally, toxic and/or nontoxic. Telephone Interview with Rob Castro, Permit-processing Engineer, Toxics Division, SCAQMD (Oct. 2, 1992).

129. Telephone Interview with Rob Castro, Permit-processing Engineer, Toxics Division, SCAQMD (Oct. 2, 1992) (agreeing with this analysis).

130. District Rule 1401(a). For a critique of the limited number of air toxics being regulated, see Labor/Community Watchdog Comment, *supra* note 46, at 2 ("The uni-

stead of covering all carcinogenic chemicals, Rule 1401 applies only to forty-seven carcinogenic air contaminants,<sup>131</sup> only eighteen of which are ROCs.<sup>132</sup> The rule excludes all increases in other carcinogenic ROCs and in noncarcinogenic toxic ROCs.<sup>133</sup> Because Rule 1401 will not cover many RECLAIM-allowed air toxics emission increases, this rule cannot effectively control impacts from RECLAIM trading.

## 2. Due to a Proposed Trigger Rule, Rule 1401 Would Undermine RECLAIM

Last year, the District proposed a RECLAIM rule that would make Rule 1401 apply to every increase in ROC emissions due to an RTC purchase. The proposed rule made "the term 'modification' . . . include any increase in an Annual Emission Cap, including increases resulting solely from changes in hours of operation or throughput."<sup>134</sup> By this type of trigger rule, the District would no longer jeopardize air toxics control, at least of the eighteen ROCs among the forty-seven carcinogens covered by Rule 1401. How-

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verse of toxic substances regulated under Rule 1401 is far more limited than those identified under AB2588 or under the Federal Toxics Release Inventory.").

131. See District Rule 1401(c)(2) and tbl. I (defining "carcinogenic air contaminant," for purposes of Rule 1401, as "a substance that has been shown to cause cancer in animals or humans" and which is listed in Table I of Rule 1401).

132. Among the carcinogenic air contaminants listed in Rule 1401 are the following 18 ROCs: acetaldehyde, acrylonitrile, benzene, bis(2-chloroethyl)ether, bis(chloromethyl)ether, 1,3-butadiene, carbon tetrachloride, chloroform, 1,4-dioxane, diphenylhydrazine, epichlorohydrin, ethylene dibromide, ethylene dichloride (1,2-dichloroethane), ethylene oxide, formaldehyde, methylene chloride, trichloroethylene, and vinyl chloride. See District Rule 1401, Table I.

133. The staff in the District Toxics Division is working to expand the list of carcinogenic air toxics covered by Rule 1401 and also to regulate noncarcinogenic air toxics. See discussion *infra* part IV.C.3 regarding Proposed Amended Rule 1401: New Source Review of Toxic Air Contaminants [hereinafter "Proposed Amended Rule 1401"].

134. Proposed District Rule 2005(g) (Nov. 3, 1992). The District must approve an amendment to the buyer's facility permit prior to an increase in its annual emission cap, based in part on the buyer demonstrating that the amended permit will comply with Rule 1401. Instead of increasing its cap, the buyer may elect to obtain an RTC certificate to allow it to apply the purchased RTC toward future emission increases. See Proposed District Rule 2007(d)(2)(E) (Nov. 3, 1992). Language in more recent RECLAIM rule proposals suggests the same result. See, e.g., Proposed District Rule 2006(c)(2)(B) (Mar. 2, 1993) (requiring compliance with New Source Review for RECLAIM, which includes Rule 1401 toxics review, for amending a facility permit to increase the annual emission cap). These proposals do not reflect the District's final conclusions on air toxics review; before the District staff submits RECLAIM ROC rules to the District Governing Board for approval, the staff intends to create a trigger rule that does not constrain trading. Telephone Interview with David Pekelni, Air Quality Specialist, SCAQMD (June 22, 1993).

ever, the change would undermine the envisioned free market epitomized by the District's commitment to no pre-approval of trades.

The proposal evidences "a fundamental inconsistency in the program."<sup>135</sup> On one hand, the District intends "that all trades of ROGs . . . be subject to screening under Rule 1401[, and on the other hand,] . . . the District has also stated that there will not be prior approval of trades."<sup>136</sup> The inconsistency stems from the fact that every ROC RTC trade would trigger District review upon the buyer's application for a facility permit amendment to increase its annual emission cap. Whenever the buyer wants to increase its ROC emissions by physical or nonphysical facility changes, or wants an emission cap increase to avoid annual ROC emission reductions, District permitting engineers would need to screen the buyer's intended emissions to determine whether Rule 1401 risk analysis applies. Engineers would need to differentiate among ROCs in the buyer's proposed increase or foregone reduction to identify any of the ROC carcinogens listed in Rule 1401. The proposal would subject to District review all trades — even, for example, an RTC purchase for a ten pound per year increase in one listed carcinogen where the buyer recently sold a credit that represented a forty pound ROC emission reduction, and even trades involving strictly nontoxic ROCs or non-listed toxic ROCs.

The Rule 1401 review process can be very time-consuming and costly to facilities. For an RTC buyer whose emission increases would include toxic ROCs listed in Rule 1401, District engineers would test whether the rule forbids a permit amendment by analyzing submitted modeling evidence of the projected cancer risks from the proposed emissions.<sup>137</sup> The engineering review for a single application lasts approximately six months.<sup>138</sup> In addition to the six-month District review, facilities suffer from the delays and costs of

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135. Labor/Community Watchdog Comment, *supra* note 46, at 2.

136. *Id.*

137. For this analysis, engineers must often ask the District Planning Division staff to review submitted modeling and inspectors to conduct source testing at the facility. Telephone Interview with Rob Castro, Permit-processing Engineer, Toxics Division, SCAQMD (Nov. 6, 1992).

138. The Permit Streamlining Act of 1977 (chap. 1200, AB 884), as amended, requires the District, when it is lead agency, *see infra* note 140, to notify facilities of final decisions on all permit applications within six months of accepting an application as complete. The District may, within thirty days, deem a permit application incomplete, but after thirty days the application is automatically deemed complete. CAL. GOVT. CODE §§ 65943(a), 65952(a) (West 1993). By notifying a facility of a deficiency in its application, the District tolls the deadline for permit processing until the facility submits the additional required information. *Id.* § 65943(b).

hiring consultants to prepare their applications. Dan Godon of ENSR Consulting states that consultants usually spend two weeks to apply the District's screening formulas for a permit application and charge up to five thousand dollars. However, to conduct a detailed risk assessment of a facility's emissions, consultants may work up to six months and charge tens of thousands of dollars depending upon the facility's size.<sup>139</sup> Also, in cases involving proposed emission increases that would result in a health risk above one excess cancer case in a million exposed persons, the review process can last up to two years, because state law requires preparation of and clearance on California Environmental Quality Act ("CEQA") documents negating the possibility of adverse environmental impacts before the District engineer may issue a permit.<sup>140</sup> Furthermore, this CEQA clearance process imposes upon facilities additional costs of between thirty thousand and nine hundred thousand dollars and a time delay of between six and eighteen months, depending upon the project's complexity and location.<sup>141</sup> Therefore, the total burden of a Rule 1401 review is somewhere between six and one-half months and two years' delay and between five thousand and hundreds of thousands of dollars.

By contrast, for an RTC buyer whose proposed emission increase would include only ROCs not listed in Rule 1401, the buyer could use the RTC after a shorter delay. The buyer would need to disaggregate its proposed emission increase, and the District would need to screen the increase to verify the absence of emission increases in any of the eighteen listed carcinogenic ROCs. Even though screening procedures are fairly simple, the current turnaround time on all permit applications involving air toxics emissions lasts at least the

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139. Telephone Interview with Dan Godon, Senior Program Manager, ENSR Consulting (Nov. 12, 1992).

140. The engineer in charge of permit issuance always requires California Environmental Quality Act ("CEQA") documentation when the cancer risk from proposed emission increases exceeds ten excess cancer cases in a million and less frequently requires such documentation when the risk is between one and ten excess cancer cases in a million. Even a one- or two-pound emission increase can exceed these thresholds if the ROC involved is highly toxic.

Depending upon the project, the District or the city is the lead agency responsible for preparing CEQA documents and obtaining CEQA clearance for permit issuance. If the District is the lead agency on a project, it prepares the documents based on emissions data and equipment diagrams submitted by the facility project proponent. The facility always must reimburse the lead agency for the costs of preparing CEQA documents. Telephone Interview with Steve Smith, District Program Supervisor for CEQA, SCAQMD (Nov. 25, 1992).

141. *Id.*; accord Telephone Interview with Linda Lindsay, Senior Environmental Analyst, ENSR Consulting (Nov. 23, 1992).

allowed six months.<sup>142</sup> Though less inconvenient and costly than the up to two-year process for buyers seeking to increase emissions of listed carcinogenic ROCs, even this review process would prove far more burdensome than RECLAIM's promised automatic registration of trades without physical facility changes.

Besides being inconsistent with the District's "no pre-approval commitment," the proposal might undermine RTC trading of ROC emissions. The delays and costs of requiring Rule 1401 review of every trade likely would have three adverse effects on trading. First and most important, the review probably would deter all but very large RTC trades. Only facilities with the resources and desire to buy RTCs valued high above the costs in time and money of Rule 1401 review could afford the transaction costs of trading. Second, the proposal would discriminate in favor of facilities interested in buying RTC certificates for future emission increases rather than those seeking contemporaneous permit amendments to increase emissions immediately. This is because Rule 1401 review, as proposed, would amount to pre-approval of RTC use, but not pre-approval of trades. Therefore, those facilities that speculate in RTCs or that have the luxury to be able to hoard RTCs for future use would be able to delay toxics review until years after their trade, or undergo immediate review to enable them to use the credit by the end of the six month to two-year review process. In contrast, those facilities that want to apply RTCs concurrently with a trade would wish for time to apply for a permit amendment in advance of an RTC purchase. However, because this review is too time-consuming to secure in advance of a needed purchase, and because sellers would rarely agree to shoulder the burden of post-trade toxics review of a buyer's emissions, these potential buyers often would be too worried about the toxics review process to ever close a deal.

Facilities' fears would not be unfounded, because the third effect of the proposal would be effective nullification of trades when proposed emission levels result in Rule 1401 denial of a facility permit amendment. By forbidding an increase in the buyer's annual emission cap, the District would prevent the buyer from using a purchased RTC and thereby force a resale. Any prospective RECLAIM facility that anticipates buying RTCs for immediate use and for relatively small ROC emission increases would not be able to enter the market. In these ways, rather than deterring only tox-

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142. Telephone Interview with Harry Hershenson, Permitting Engineers Supervisor, SCAQMD (Nov. 19, 1992); *see supra* note 138.



ics trading and impacts, the District's proposed review of every ROC RTC trade would deter all ROC RTC trading, thereby jeopardizing the entire trading program.

### 3. Proposed Amended Rule 1401 and Proposed Rule 1402

The District plans to amend Rule 1401 and to adopt a companion rule, Rule 1402. Unfortunately, the District appears unconcerned over the possibility of beginning implementation of RECLAIM before adopting any final rules. Also, there is no guarantee that such rules, if ever adopted, could mitigate RECLAIM's adverse air toxics impacts.

First, under Proposed Amended Rule 1401: New Source Review of Toxic Air Contaminants ("Proposed Amended Rule 1401"), the District intends to expand Rule 1401 to cover seventy-two unregulated toxic compounds, including many noncarcinogenic toxics.<sup>143</sup> The amended rule would establish allowable exposure limits for listed carcinogenic and noncarcinogenic air toxic emissions, and would apply to permit applications for new and modified emission sources. To avoid permit denial, permit applicants would need to prove that their total air toxics emissions would not exceed the risk limits. Only by causing RTC trading to trigger the amended rule would the District mitigate under-control of redistributed air toxics emissions. Yet, by doing so, the District would aggravate incidentally the costs and time delay of toxics review prior to RTC use and thereby impede the market.

The District offers Proposed Rule 1402: Control of Toxic Air Contaminants from Existing Sources ("Proposed Rule 1402") to implement SB 1731<sup>144</sup> by limiting existing cancer risks from carcinogens and risks of non-cancer effects from noncarcinogenic air toxics that will be listed in Proposed Amended Rule 1401. Under Proposed Rule 1402, the District would establish facility risk limits, identify (by evaluating approved HRAs submitted pursuant to AB 2588) high-risk facilities which exceed such limits and develop procedures for requiring identified facilities to prepare and implement risk reduction plans to achieve acceptable risk levels.<sup>145</sup> The District claims that implementation of Proposed Rule 1402 would further ensure that RECLAIM trading neither causes air toxics emission increases nor allows facilities to forego needed reduc-

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143. REPORT ON PROPOSED RULE 1402 AND PROPOSED AMENDED RULE 1401, *supra* note 2, at ES-5.

144. See discussion *supra* part IV.B.2.c regarding the state regulatory program.

145. DRAFT WORKING PAPER FOR PROPOSED RULE 1402, ETC., *supra* note 4, at 6.

tions.<sup>146</sup> The viability of the proposed solution would depend first upon stringency that is equivalent to the risk reductions mandated by SB 1731,<sup>147</sup> and second, upon creating sensible triggers for applying the rule so as not to interfere unduly with trading.

The District plans to tie Proposed Rule 1402 to approval of HRAs,<sup>148</sup> which likely will prove problematic since HRAs become stale every two years.<sup>149</sup> Also, the District is woefully behind in evaluating submitted HRAs and will not be able to approve all of them by the expected start of RECLAIM.<sup>150</sup> The District's inability to approve submitted HRAs prior to trading translates into an inability timely to establish the alleged backbone of the proposed air toxics control program. This means that even after adopting the rule the District cannot ensure that RECLAIM facilities will not calculatedly choose to conduct trades that would create or maintain illegal toxics hot spots.

Facilities will realize quickly that the District needs at least a few years to request and review an HRA and even longer to request and approve a risk reduction plan under either this proposed rule or the state rule. When RTCs become very valuable, facilities will have an extra incentive to violate these rules, which are difficult and time-consuming to enforce. Until the District approves substantial numbers of HRAs and begins requiring risk reduction plans, it will be unprepared to regulate interim redistributions of noncarcinogenic air toxics emissions due to RECLAIM trading.

When Proposed Rule 1402 catches up to RECLAIM, it might effectively redress the Basin's toxics hot spots, including RECLAIM-driven toxics problems. The issue at that time will be the same issue posed by Rule 1401 or Proposed Amended Rule 1401, namely whether the District can implement the rule without creating prohibitive transaction costs which deter trading.

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146. *Id.* at 1.

147. *See supra* part IV.B.2.c.

148. Proposed District Rule 1402(c) (May 7, 1993) (also applying the rule to approved HRAs submitted for purposes of this rule and to HRAs created by the District for a facility).

149. *See supra* note 114.

150. Interview with Kate Crespi Chun, Toxics Division Specialist, SCAQMD, in Diamond Bar, CA (Sept. 22, 1992).

## V.

RECOMMENDATIONS: DESIGNING RECLAIM AND  
TOXICS RULES TO MITIGATE ADVERSE AIR  
TOXICS IMPACTS CREATED BY A  
TRADING PROGRAM

The following recommendations attempt to harmonize the competing objectives of emissions trading programs and air toxics control. The goal of each recommendation is to deter illegal air toxics trading which could exacerbate air toxics hot spots problems, without deterring all RTC trading of ROC emissions. By removing the market incentive for facilities to create excessive air toxics emissions and without discouraging all trading, the District can make RECLAIM sufficiently protective of public health as well as profitable for facilities.

A. *Triggering Rule 1401*

The District has debated two regulatory approaches: (1) no scrutiny of a buyer's emissions except in cases of carcinogenic emission increases due to physical facility changes; and (2) screening of every facility permit amendment prior to a buyer's use of a purchased ROC RTC. Instead of jeopardizing either air toxics control or credit trading, the District should require buyers to differentiate among ROCs in obtaining facility permit amendments, and then conduct Rule 1401 review only of emission increases, and only for certain increases in the eighteen ROCs among the forty-seven Rule 1401 carcinogens.<sup>151</sup>

As a preliminary matter, the District should require differentiation among ROCs included in an RTC buyer's emissions.<sup>152</sup> To obtain a facility permit amendment authorizing use of a purchased ROC RTC, buyers should report the particular ROCs they plan to emit or of which they plan to forego reductions. Dr. Michael J. Sullivan, from the consulting firm McLaren/Hart, assures that Basin facilities already know which ROC compounds they emit, because they need to understand their processes to make informed risk-management decisions. Even if facilities choose not to conduct

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151. In addition to addressing the competing needs for air toxics control and a viable trading market, this compromise might also encourage facilities to avoid trades involving regulated air toxics.

152. In this respect, the District may regulate RTC sellers differently. To obtain downward adjustments in their allowed annual emissions, sellers should not need to disaggregate their ROC emission reductions, because such reductions would never trigger Rule 1401 review.

their own source testing, published guidelines exist that tell them the assumed content of their emissions. Each manufacturer of ROC-containing products used in facility processes provides users of those products with a material safety data sheet ("MSDS") which itemizes the products' chemical content by percentage.<sup>153</sup> Also, for processes such as combustion that cause ROC emissions, the District publishes conservative estimates of process-specific emissions called emission factors.<sup>154</sup>

Whereas quantification of ROC emissions is difficult, qualification of emissions is common business knowledge. Therefore, requiring RTC buyers to report which ROCs they plan to emit upon applying a purchased RTC would impose virtually no burden on buyers, in either time or money. Most important, this requirement would avoid an unnecessary trading impediment suggested by the District's Proposed Rule 2005(g), namely the permit engineer's screening of buyers' emissions to determine whether Rule 1401 applies.<sup>155</sup> The District would know instantly whether an ROC RTC trade involved a carcinogen subject to Rule 1401 review and could restrict its scrutiny to trades for emission increases in those listed compounds.

Narrowing Rule 1401 review still further, buyers should not have to undergo review for every increase in listed ROCs. Rather, the District should restrict its review to emission increases above a certain threshold amount, such as one hundred pounds of emissions of any listed carcinogenic ROC. This would insulate de minimis carcinogenic emission increases from District review. Still, RTC buyers should not be allowed to rely upon the de minimis increase exemption if their aggregate annual RTC purchases exceed a certain multiple of the one-time trade threshold. In this way, buyers could not avoid Rule 1401 review by structuring large RTC purchases as a series of small, exempt purchases.

To establish the threshold amount, the District should forecast the percentage of anticipated RTC trades for each of the eighteen ROCs listed in Rule 1401. In doing so, the District should consider

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153. Occupational Safety and Health Administration ("OSHA") rules require "chemical manufacturers or importers [to] assess the hazards of chemicals which they produce or import . . . by means of . . . material safety data sheets." See 29 C.F.R. § 1910.1200(b)(1) (1992). These data sheets must identify the percentage content of each hazardous ROC in the products. See *id.* § 1910.1200(g).

154. Telephone Interview with Dr. Michael J. Sullivan, Principal Health Scientist, McLaren/Hart (Nov. 12, 1992).

155. See discussion *supra* part IV.C.2 regarding Proposed District Rule 2005(g) and its effects on Rule 1401 review.

grouping the eighteen ROCs according to their toxicity level (high, medium, or low) and then establish separate thresholds for each of the three categories. This would enable the District to avoid protracted debate over any single "appropriate" threshold and would make RECLAIM sensitive to the varying health risk levels posed by toxic ROCs.<sup>156</sup> Because of the potential for greater emissions from highly toxic ROCs, the threshold level for the "high toxicity" category of Rule 1401 ROCs should be lower than for the "low toxicity" category. As the list of carcinogens in Rule 1401 expands to include additional ROCs, the District should attempt to fit those air toxics into the three existing categories rather than create new categories and thresholds for individual pollutants.

If the percentage of expected trades involving ROCs in a given category is high, then the threshold should be proportionately high to avoid burdening small RTC trades. Otherwise, the District would risk establishing the same "pre-approval" system suggested by the proposed trigger rule, which would subject all ROC RTC trades to District review. As the level of trading involving a category of air toxics increases, the District should not continually adjust the thresholds upward. The District and RECLAIM buyer facilities must accept certain delays and costs of air toxics control as a necessary safeguard for trading.

As a second way to ease the burden of Rule 1401 review, the District could require its engineers to complete the permit review in less than the six months allotted under state law. For example, a rule could deem permit amendment approval to be automatic unless the District disapproves the amendment within three days, or up to two weeks, depending upon the size of the proposed emission increase and the number of ROC compounds involved. Still, if the District's failure to process an application on time is in any way the applicant's fault, the automatic approval should not apply. In other words, the District should not allow, and should in fact penalize, facilities that intentionally bombard it with extraneous or muddled data to take advantage of the rule. Assuming the automatic approval does apply to a facility's desired permit amendment, then the facility can use the credit and subsequently justify the emission increase under Rule 1401 within, for example, three months after the unanalyzed increase. If, at that time, the facility fails Rule 1401

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156. For example, ARB has ranked certain Rule 1401 toxic ROCs as follows: benzene, carbon tetrachloride, formaldehyde and chloroform are Level 1A toxics; methylene chloride and perchloroethylene are Level 1B toxics; and acetaldehyde is a Level 2 toxic. See TOXICS "HOT SPOTS" DATA, *supra* note 12, app. A, tbl. 3.

review, it should be forced to compensate for its illegal emissions through emission reductions in the same toxic ROCs. This rule could minimize time delays for using credits without leaving loopholes for buyers to maneuver undetectable, illegal air toxics emissions.

In addition, the District should similarly review noncarcinogenic toxic ROC emission increases and emission increases of newly-listed carcinogenic ROCs under Proposed Amended Rule 1401. The District should require RTC buyers who report an intended emission increase of a listed noncarcinogenic air toxic to undergo review prior to RTC use whenever the proposed increase exceeds a designated threshold amount. Accordingly, the rules would deter only specific, particularly significant air toxics trades instead of deterring all RTC trading.

Finally, the District must ensure appropriate implementation of Proposed Rule 1402 to reduce existing risks from Proposed Amended Rule 1401 carcinogens and noncarcinogens, without unduly impairing the market. The solution here is identical to that suggested for the other District rules. The District should require RECLAIM buyers to specify the ROC compounds of which they intend to increase emissions or forego reductions. With this information, the District and facilities that must implement risk reduction measures for certain air toxics would know immediately whether any proposed trade might interfere with required risk reduction measures. If a proposed RTC trade for ROC emission increases or foregone emission reductions involves specific air toxics that the buyer already emits at an identified, safe level, then the District need not review the trade. On the other hand, if the trade involves any air toxic that the buyer already emits excessively, then the District should test proposed emissions above a certain threshold for interference with the facility's risk reduction plan.

#### B. *Special RECLAIM Penalties*

To ensure that RECLAIM does not encourage violations of toxics rules, the District should create severe penalties. Recall that the proposed penalties for rule violations are existing statutory fines, administrative penalties, permit revocation and reduced emission caps for a subsequent compliance year.<sup>157</sup> Rather than rely exclusively upon these penalties and the hoped-for speed and effectiveness of District permitting, the District should try to deter likely

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157. See *supra* notes 38-42 and accompanying text.

adverse air toxics impacts. In this regard, "[t]he widest range of penalties available for prosecution will offer the greatest deterrence."<sup>158</sup>

"The EPA has expressed their strong belief that the District should have criminal prosecution available for [RECLAIM]."<sup>159</sup> Currently, state law does not authorize District prosecutors to impose criminal sanctions on toxics rule violators, and applicable criminal fines are set at a maximum of one thousand dollars per day per violation, absent culpability.<sup>160</sup> Although the District has expressed an intention to rely exclusively upon existing state law penalties to enforce RECLAIM, it should seek statutory authorization to punish facilities criminally and to recover larger criminal fines than are currently available. The District should petition the California legislature for the enforcement authority required for approval of a Clean Air Act Title V state operating permit program. To be approved, a permit program must include enforcement authority for strict liability criminal and civil penalties of not less than ten thousand dollars per day per violation.<sup>161</sup> The California Air Resources Board ("ARB") is drafting a bill to obtain such statutory authorization.<sup>162</sup> However, if the District intends to allow ROC RTC trading before ARB adopts a Title V permit program, then the District itself should seek such enforcement authority, and specifically for its own prosecutors, in order to deter adverse air toxics impacts from trading.

"In addition, the District will need to be able to suspend trading and, on [sic] individual cases, to cancel trades," in order to "deter fraud and protect honest traders and the environment."<sup>163</sup> Suspending trading altogether is a drastic remedy which might be appropriate in the event RECLAIM exacerbates toxics hot spots to an intolerable, uncontrollable degree — which the District would need to define precisely, perhaps as a twenty-five percent health risk in-

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158. WORKING PAPER #5, *supra* note 66, at 6-3.

159. *Id.*

160. Permit and District rule violations are misdemeanors punishable by a fine of up to one thousand dollars and/or up to six months imprisonment; negligent and knowing emissions of air contaminants in violation of District rules subject facilities to larger misdemeanor penalties. CAL. HEALTH & SAFETY CODE, §§ 42400(a), 42400.1(a), 42400.2(a) (West 1993). The District must "refer violation[s] to a prosecuting agency" rather than prosecuting violations itself. *See id.* § 42400(c).

161. State Operating Permit Programs, 57 Fed. Reg. 32,295, 32,312 (1992) (to be codified at 40 C.F.R. § 70.11(a)(3)) (proposed July 21, 1992).

162. ARB and the District are currently developing a state operating permit program pursuant to Title V of the Clean Air Act. *See supra* note 105.

163. WORKING PAPER #5, *supra* note 66, at 6-3.

crease in three Basin areas. By canceling a trade that would result in emission increases without offsetting emission reductions, the District could punish the RTC seller that feigns air toxics emission reductions and violates risk reduction requirements under Proposed Rule 1402 or state law SB 1731. The District would thus achieve a speedy administrative remedy in lieu of initiating court proceedings to recover fines from the seller or from the defrauded buyer.<sup>164</sup> Also, rather than allowing the buyer to increase its emissions on the basis of the seller's non-existent emission reductions, the District would force the buyer to "know" its seller, by making a suit for damages the buyer's exclusive remedy.

Alternatively, where the seller actually reduces its emissions but the buyer increases its emissions without applying for a permit amendment, or after being denied a permit amendment under Rule 1401 or Proposed Amended Rule 1401, the District should simply prohibit use of the RTC rather than cancel the trade. This would force buyers to absorb a financial loss for their violation rather than allow them to resell RTCs that they legally cannot use. Innocent sellers would be able to keep their proceeds.<sup>165</sup> By creating these additional remedies, the District would not only reinforce its emissions monitoring and permitting, but also deter public health impacts rather than solely punish violators after the fact, when the damage is irreversible.

## VI.

### CONCLUSION

Scrutiny of few credit trades and scrutiny of all trades are polar options which are unworkable. Air quality control agencies should instead require differentiation of pollutants and should scrutinize only trades involving regulated air toxics and only trades of a certain minimum size. This compromise can ensure appropriate enforcement of toxics rules similar to the District rules. Yet, in the long run, protection against air toxics impacts will depend upon the degree to which enforcement of state and federal toxics regulations effectively controls facilities participating in emissions trading programs.

By the next decade, federal NESHAPs and state risk reduction

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164. Joseph Panasiti also recommends that the District be able to recover fines from the buyer in the case of fraud by a seller. Telephone Interview with Joseph Panasiti, Senior Deputy District Prosecutor, SCAQMD (Dec. 18, 1992). See discussion *supra* part II.B.2.

165. *Id.*



and emissions control requirements will force the District to interfere more with ROC RTC trading. NESHAPs will require reporting and agency monitoring of 189 air toxics, and state law AB 2588, when fully implemented, will require similarly detailed reporting as well as health risk analysis and notification by most facilities in the trading program. Because buyers and sellers will not be allowed to trade their way out of federal or state requirements, trading will be constrained. For example, although currently the District needs to scrutinize proposed emission increases of only eighteen carcinogenic ROCs, eventually it will need to screen emissions of many more air toxics, assess their impacts and ensure installation of mandated air toxics controls. This eventuality does not evidence a perversity attributable to RECLAIM as an emissions trading program; it merely bespeaks the increased federal and state intolerance for air toxics impacts. Survival of RECLAIM and other emissions trading programs will depend upon facilities' tolerance of agencies' intrusions to enforce these future requirements and upon finding ways to lower the costs and time delays of toxics review. In the long run, agencies and facilities will need to accept detailed air toxics emissions reporting and toxics review as transaction costs attending every credit trade in order to trade in a pollutant that includes air toxics.

The remaining question is whether the District and other air quality control agencies should await further implementation of federal and state toxics programs before adopting emissions trading programs. The District already has chosen to create an initial trading market for NO<sub>x</sub> and SO<sub>x</sub> only. Delay will afford the District time to test the trading mechanism, to study the redistribution of emissions and to verify enforceability of the program in terms of accurate emissions monitoring, reporting and detection of permit violations.

Although the District does not do so, it should equate the ROC market starting date with adoption and implementation of toxics rules. In terms of air toxics control, this Comment suggests that delay would enable the District to amend Rule 1401 for carcinogens and noncarcinogens, to adopt Proposed Rule 1402 for health risk reduction and to begin operating under a Title V permit program with provision for expanded criminal enforcement authority and NESHAPs enforcement. Also, a sufficient delay would allow for the promulgation of federal MACT standards and initial implementation of state-required health risk reduction plans, as well as additional review of HRAs and public notification of significant health risks. Then, after the federal, state and District toxics rules all are

at least partially implemented, the District could implement a complete ROC RTC market that incorporates its new understanding of emissions trading and is sufficiently regulated by air toxics control programs. Therefore, the District should delay most, if not all, ROC RTC trading by up to five years.<sup>166</sup> Emissions trading programs that affect air toxics depend upon effective toxics regulations, not the mere existence of toxics regulations.

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166. The single tenable argument against a phased approach can be dispensed with. Robert Wyman, counsel for many prospective RECLAIM ROC facilities, argues that if the District divides the universe of RECLAIM pollutants and sources, it will risk losing the first-time, tenuous consensus within industry to accept emission caps and instead cause damaging competition between included and non-included industry groups. Telephone Interview with Robert Wyman, Esq., Latham & Watkins (Dec. 9, 1992). The District already has decided to delay the ROC market a few months, and many facilities, including those represented by the Western States Petroleum Association ("WSPA"), support the phase-in approach, albeit for reasons unrelated to air toxics concerns. Telephone Interview with anonymous spokesperson, WSPA (Dec. 24, 1992). (WSPA includes Arco, Unocal, Shell and up to forty other companies.)

Apparently, the "consensus" on RECLAIM ROC trading has faded already. On balance, the District would be well-advised to await assurance of the effectiveness of the several toxics rules before allowing broad ROC RTC trading.

