EPA Common Sense Initiative
Metal Finishing Sector

STRATEGIC GOALS PROGRAM

National Performance Goals and Action Plan

December 16, 1997

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Executive Summary

The CSI Metal Finishing Sector

In 1994, the Administrator of the Environmental Protection Agency, Carol Browner, launched the Common Sense Initiative (CSI), describing it as a "fundamentally different system" to explore industry-specific strategies for environmental protection. This sector-based program is designed to promote "cleaner, cheaper, and smarter" environmental performance, using a non-adversarial, stakeholder consensus process to test innovative ideas and approaches. CSI is an open process to address regulatory, reporting, technological, permitting, compliance, and pollution prevention issues.

In January of 1995, the Environmental Protection Agency (EPA) chartered the Metal Finishing Sector Subcommittee of the Common Sense Initiative under the Federal Advisory Committee Act. The Metal Finishing Subcommittee includes representatives of EPA Headquarters and regional offices, the metal finishing industry and its suppliers, state government, Publicly Owned Treatment Works (POTWs), national and regional environmental organizations, the environmental justice community, and organized labor.

To date, the CSI Metal Finishing Sector (CSI/MF) has been successful in achieving active stakeholder participation, innovative project development, and tangible products and outcomes. Participants in CSI/MF meetings have greatly expanded their understanding of the metal finishing industry and stakeholder group perspectives of that industry. This knowledge has provided a firm foundation for non-adversarial dialogue, which in turn has lead to development of fourteen Subcommittee-endorsed projects to test new ways to achieve "cleaner, cheaper, and smarter" outcomes for the industry.

A Strategic Challenge

In December 1995, Administrator Browner challenged the Metal Finishing Subcommittee to explore a more strategic approach to the Sector. The Administrator recommended that the Subcommittee develop a consensus package of "cleaner, cheaper, and smarter" policy actions for the industry as a whole, based on the lessons learned from the Sector's projects and dialogue. The Subcommittee members agreed that a comprehensive policy package for the metal finishing industry could serve as a roadmap to move the Sector into the next generation of environmental management and regulation. As a result of this challenge, the Subcommittee established a workgroup to develop a strategic policy and program framework for the industry.

A Challenge Met: The Strategic Goals Program

With the completion and endorsement of the Strateigc Goals Program, set forth in this document, the Metal Finishing Subcommittee has met the Administrator's challenge. In Part 1 of this document, the Subcommittee has created a set of voluntary, "cleaner, cheaper, smarter" National Performance Goals for the industry. These facility-based and industry-wide goals are a set of ambitious targets that represent "beyond compliance" environmental performance for metal finishers.

Part 2 of the Goals Program sets forth a detailed action plan for all stakeholder groups, drawn from the Sector's fourteen projects. The Part 2 "enabling actions" address nine issue areas for the metal finishing industry. These actions will provide incentives and remove barriers for metal finishers to achieve the National Performance Goals. The action plan includes specific commitments by all stakeholders to act in support of the Strategic Goals Program.

Key Stakeholder Interests Are Addressed

The Subcommittee has worked collaboratively and creatively to assure that this document addresses the long-term interests and concerns of all stakeholders, including (but not limited to) the following:

- improved environmental performance and reduced human health impacts;
- less cost involved in demonstrating compliance through reporting and monitoring;
- permitting processes that reflect facility performance and are "synchronized" with timely business decisions;
- improved public access to information and greater local involvement in decisions that affect communities;
- recognition of the economic priorities of companies and the communities in which they operate;
- creation of technologies, tools, and incentives that foster continuous improvement and support efforts to reduce government oversight.

It is important to note that the Goals Program could not have been created without the active participation of many stakeholders, representing a diverse range of groups and interests. In addition, participating stakeholders (Subcommittee members and others) have shown an extraordinary willingness to consider different points of view and seek consensus positions that will best achieve "cleaner, cheaper, and smarter" outcomes for the metal finishing industry.

Key Themes

As the Metal Finishing Subcommittee has developed the Strategic Goals Program, a number of important themes became clear. The Subcommittee believes it is important for all readers of this document to be aware to these points, as a means of understanding the Goals Program and also to better appreciate what it represents in terms of innovative system change.

(1) The Program represents a ground-breaking effort -- *a long-term strategic vision* for improved environmental protection (a "net gain") by an entire industry. The Subcommittee embraced the *opportunity to test new ideas* that are both bold and "common sense" in nature.

(2) The Program provides the first major chance to achieve CSI's goal of creating a "fundamentally different system" for an industry sector: *a voluntary, performance-based system* that offers an alternative track for the industry.

(3) At no time did the Subcommittee lose sight of the need to *maintain strong environmental standards* in the Goals Program and in all CSI/MF endorsed projects.

(4) The Program is *designed to achieve tangible results* -- real "cleaner, cheaper, smarter" outcomes.

(5) *Both parts of Goals Program are vital* -- the voluntary performance targets and the action plan. The Part 1 targets define *"meaningful environmental progress"* for the industry. The Part 2 "roadmap" and stakeholder commitments provide *essential incentives and system changes* that will enable metal finishers to achieve the performance goals.

(6) The Program could not have been created without *strong leadership by key "players"* in the metal finishing industry (predominantly small businesses) and other important stakeholder groups. These leaders were willing to *act in good faith, take necessary risks, and see this process through to a worthwhile conclusion.*

A Potential Model, Based on Lessons Learned

Though experimental in nature, the Strategic Goals Program has the potential to move government "reinvention" from the drawing board to reality. The Subcommittee believes that, over the long-term, the Program will *provide a replicable model for development of a workable, performance-based regulatory system*, operating in parallel with the existing baseline set of strong environmental standards.

However, the Metal Finishing Subcommittee also believes that development of a sector-wide strategic program can only succeed if certain steps are taken to build a strong foundation of knowledge, experience, and stakeholder trust. Sector programs will vary based on the unique characteristics of different industries -- an important CSI theme. The Subcommittee has identified the following factors that it believes as critical to the success of any sector:

- A good faith effort by all stakeholders and a clear belief in the potential payoffs of the process.
- A strong foundation of knowledge of industry -- traits, trends, issues, and drivers and barriers of performance.
- A strong foundation of experience based on projects that address key issues and opportunities for this industry.

- A strong commitment to stakeholder input at all stages and the development of partnerships to solve problems.

- A full stakeholder commitment to maintain strong environmental standards as new approaches are tested.

- Proactive EPA participation at all levels, by all offices.

- A constant emphasis on bold, innovative, "outside-the-box" ideas -- reasonable risk-taking to achieve better long-term results -- tempered with patience to test and phase-in new approaches.

The Subcommittee believes that these factors provided the necessary foundation for its Strategic Goals Program to be developed. These are process steps -- the substantive knowledge of different industry sectors and the resulting projects and strategic framework for those sectors may vary significantly. But this process has provided the Metal Finishing Sector with a strong basis of stakeholder trust, without which the Goals Program could not even have been contemplated.

Metal Finishing Subcommittee Endorsement

It is with pride and optimism that the CSI Metal Finishing Subcommittee endorses the Strategic Goals Program described in this document, as reflected in the following statement and the signatures of all Subcommittee members.

We, the members of the Metal Finishing Sector Subcommittee of the Common Sense Initiative, on behalf of our respective organizations, endorse and agree to jointly implement the Strategic Goals Program as described in this document.

December 16, 1997

David Gardiner *(Co-Chair)*
EPA Office of Policy, Planning and Evaluation

John DeVillars *(Co-Chair)*
EPA Region 1 (New England)

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Metal Finishing Subcommittee Endorsement

David Marsh
Marsh Plating Corporation (NAMF)

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Mid-Atlantic Finishing, Inc.(AESF)

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William Saas
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Curt Spalding
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Part 1: National Performance Goals

Overview

Part 1 of this document sets forth national performance goals for the metal finishing industry. These goals, when taken collectively, define a cleaner, cheaper, smarter vision of the future -- a vision that is ambitious yet achievable through cooperative effort involving all stakeholders.

The purpose of establishing these Goals is to help promote a fundamental paradigm shift in the way all stakeholders understand -- and work together to achieve -- improvements in the environmental performance of this industry. They are designed to cultivate a "continuous improvement" ethic within the metal finishing industry, its regulators, workers, and the general public. They are intended to foster working relationships among these stakeholders that are rooted in and reflect this ethic.

The success of these Goals will be measured not only in terms of their achievement, but also in terms of the extent to which they promote fundamental underlying changes:

- a shift from the current tendency to rely on national, "one size fits all" environmental standards to a greater focus on the environmental priorities and capabilities of a facility, its POTW, and their local environment;

- a shift from predominant use of command and control to greater use of a performance-based approach that rewards environmental excellence as much as it punishes non-compliance;

- a shift from what is often confrontational interaction between facility managers, regulators, local communities, and other stakeholders towards working relationships, where possible, that recognize and build on these parties' common goal of efficient, effective environmental protection.

Consistent with the purpose of the Goals, they are put forth as voluntary -- not as additional requirements to be met by the various stakeholder groups. The numerical targets included in many of the Goals are strategic and directional rather than prescriptive. They are based on the Subcommittee's best collective professional judgment of what is meaningful and achievable. Their role is to define a direction, provide a target for strategic planning purposes, and provide a yardstick against which progress can be measured.

The Goals relate to both individual metal finishing facilities and the industry sector as a whole. The first three call for improved facility resource utilization, reduced hazardous emissions, and reduced compliance costs. The other two Goals call for the industry-wide achievement of the first three goals and continuous improvement regarding compliance, enforcement, and site transition/remediation. The Subcommittee, again using its best collective professional judgment, believes these elements represent the highest priority Goals from a relative-risk perspective. The Subcommittee also endorses the dynamic nature of the Goals Program, recognizing the possibility of future refinements based on stakeholder evaluation of the current effort.

Metal Finishing National Performance Goals: A Vision for a Cleaner, Cheaper, Smarter Future

Facility-Based Performance Goals (By Year 2002)

(1) Improved Resource Utilization *("Smarter")*

(a) 98% of metals ultimately utilized on product.

(b) 50% reduction in water purchased / used *(from 1992 levels).*

(c) 25% reduction in facility-wide energy use *(from 1992 levels).*

(2) Reduction in Hazardous Emissions and Exposures *("Cleaner")*

(a) 90% reduction in organic TRI emissions and 50% reduction in metals emissions to air and water *(from 1992 levels).*

(b) 50% reduction in land disposal of hazardous sludges and a reduction in sludge generation *(from 1992 levels).*

(c) Reduction in human exposure to toxic materials in the facility and the surrounding community, clearly demonstrated by actions selected and taken by the facility. Such actions may include, for example, pollution prevention, use of state-of-the-art emission controls and protective equipment, use of best recognized industrial hygiene practices, worker training in environmental hazards, and participation in a Local Emergency Planning Committee.

(3) Increased Economic Payback and Decreased Costs *("Cheaper")*

(a) Long-term economic benefit to facilities achieving Goals 1 and 2.

(b) 50% reduction in costs of unnecessary permitting, reporting, monitoring, and related activities *(from 1992 levels)*, to be implemented through burden reduction programs to the extent that such efforts do not adversely impact environmental outcomes.

Sector-Wide Performance Goals (By 2002)

(4) Industry-Wide Achievement of Facility Goals.

(a) 80% of facilities nationwide achieve Goals 1 - 3.

(5) Industry-Wide Compliance with Environmental Performance Requirements.

(a) All operating facilities achieve compliance with Federal, State, and local environmental performance requirements.

(b) All metal finishers wishing to cease operations have access to a government sponsored "exit strategy" for environmentally responsible site transition.

(c) All enforcement activities involving metal finishing facilities are conducted in a consistent manner to achieve a level playing field, with a primary focus on those facilities that knowingly disregard environmental requirements.

Note: *At facilities where outstanding performance levels were reached prior to 1992, the percentage-reduction targets for Goals 1(b) and (c) and 2(a) and (b) may not be fully achieveable, or the effort to achieve them may not be the best use of available resources. In these instances, a target should be adjusted as necessary to make it both meaningful and achieveable. See the discussion of these Goals, below.*

Background on the Goals in General

The Metal Finishing National Performance Goals define a cleaner, cheaper, smarter future that all stakeholders will need to work cooperatively to achieve. Their role is to provide a common orientation and direction to stakeholders' environmental protection efforts. They are not a replacement for existing regulatory requirements, nor are they to serve as additional regulatory requirements. Proposals for changes in regulatory requirements are set forth in Part II of this document.

The Facility-Based Goals (1 - 3)

The first three Goals call for improved environmental performance and reduced compliance costs at individual facilities. They are stated broadly so as to allow specific objectives and strategies for achieving them to be developed at the facility-specific level based on local circumstances.

The numerical targets associated with these first three Goals were established using the collective best professional judgment of the Subcommittee and a workgroup it charged with developing them. Both the Subcommittee and the workgroup comprise balanced groups of stakeholders represented by professionals with expertise in metal finishing, environmental protection, and regulatory programs.

These experts set out to establish "meaningful and achievable" numerical targets; targets set beyond baseline compliance levels -- beyond the level of improvement we would expect in the absence of this Goals effort -- yet not so ambitious as to discourage attempts to achieve them. Striking this balance required thoughtful, in depth analysis

and deliberation, with the assistance of technical consultants. The consultants collected available data and evaluated the proposed targets based on the "meaningful and achievable" criteria. With many of the Goals focusing on new measures of environmental performance, limited relevant data was available. This limited data, however, does indicate that the numerical targets are meaningful and achievable.

Establishing meaningful, achievable numerical targets for use in a voluntary Goals effort does not necessitate the level of precision called for when developing regulatory standards. As stated in the introduction, the numerical targets provide a target for strategic planning purposes and a yardstick against which progress can be measured. They are not to be construed as prescribing additional requirements for any stakeholder group.

Furthermore, the numerical targets are designed to be generally applicable to a broad range of manufacturing processes, materials, and products; and to both job shops and captives. The level of effort required to achieve them will vary depending on these and other variables. For the goals with percentage-reduction targets, the level of effort will vary markedly depending on the level of performance a facility achieved prior to the baseline year of 1992.

Given all these variables, determining when the Goals have been achieved at a particular facility should be done in the spirit in which the numerical targets were originally developed; focusing on promoting and achieving significant continuous improvement without attempting to establish or dwell on measures that are unhelpfully precise for these purposes.

Three situations may call for deviation from the numerical targets in order for the Goals to effectively serve their intended purpose. First, at facilities where outstanding performance levels were reached prior to 1992, the percentage-reduction targets for one or more of Goals 1(b)-(c) and 2(a)-(b) may not be fully achievable, or the effort to achieve them may not be the best use of available resources. Second, it may not be technologically or practically feasible to achieve the metals utilization and emission reduction Goals 1(a) and 2(a)-(c) while also fully achieving the water and/or energy use reduction Goals 1(b) and (c) (e.g., where increased energy is required to operate emission reduction equipment). Third, significant increases in business pro-duction may afffect the ability of a metal finishing facility to meet the numerical targets, despite overall improvements in environmental management and performance.

The Subcommittee endorses the need to establish a flexible program that fully rewards meaningful and achieveable accomplishments while not penalizing facilities that have a long record of environmental achievement that pre-dates 1992 baseline year and/or face reasonable and unavoidable limitations in their ability to meet all of the Goals. The Subcommittee will therefore develop an equitable process and criteria for judging the performance of facilities that fall within the three scenarios described above. The Subcommittee will ensure that highest priority is given to Goals 1(a) and 2(a)-(c), with a strong, continuing commitment to protect the health of workers and residents of surrounding communities. These Subcommittee decisions will be incorporated into the operating framework and implementation plan for the Goals Program.

The Industry-Wide Goals (4 - 5)

The last two Goals relating to the industry sector as a

whole will require a multi-stakeholder effort at the national and regional levels. These Goals grew out of, and correspond to, the "Four-Tier Structure" concept which highlights the different tiers of environmental performance within an industry sector.

Underlying these Goals is a shared belief that all stakeholders working together should focus resources on helping metal finishing firms meet and exceed environmental compliance standards; helping those that want to go out of business do so in an environmentally responsible manner; and enforcing to the fullest extent of the law against those that knowingly disregard environmental requirements. The importance of these industry-wide Goals cannot be overstated, nor can the need for effective multi-stakeholder strategies to achieve them.

Discussion of Individual Goals

Goal 1: Improved Resource Utilization

Improving resource utilization is a "smarter" thing to do. Achieving these goals can benefit both the environment and a facility's bottom line. Metals utilization, water and energy are the three main resource areas where both environmental and economic gains can be made.

Goal 1(a) -- 98% of metals ultimately utilized. This Goal is achieved when a facility is land-disposing less than 2% of the metals it purchases. It grew out of the basic notion of "a pound of metals bought, a pound used." The intent is to encourage facilities to analyze their metals use and actively look for ways to change and improve their processes to maximize the efficiency of metals use. Facility-specific assessment may include consideration of alternative materials that may be more effectively applied to products.

Metals utilization rates vary depending on the metal being applied and the process being employed, as does the capability to improve the rate. However, it is the best professional judgment of the Subcommittee that the 98% target is meaningful and achievable in most instances. The limited data currently available supports this target (New Jersey is the only state in which incoming metals and releases to the environment are jointly reported).

Goal 1(b) -- 50% reduction in water purchased and used. This Goal is achieved when a facility has an annual water usage that is 50% or less of its 1992 water usage, adjusted for any changes in the facility's level of production. If an outstanding performance level was reached prior to 1992, the 50% reduction target may not be fully achievable -- or the effort to achieve it may not be the best use of available resources. In these instances, the target should be adjusted as necessary to make it both meaningful and achievable. The idea is to encourage the use of "as close to a 'closed-loop' water system as possible." Significant reductions in water usage rates will be achievable primarily through increased recirculation/reuse. The 50% target is meaningful and achievable at facilities which had not instituted extensive water reuse practices prior to 1992.

Goal 1(c) -- 25% reduction in facility-wide energy use. This Goal is achieved when a facility's total annual energy consumption is 75% or less of its 1992 total energy consumption, adjusted for any changes in the facility's level of production. If an outstanding performance level was reached prior to 1992, the 25% reduction target may not be fully achievable -- or the effort to achieve it may not be the best use of available resources. In these instances, the target should be adjusted as necessary to make it both meaningful and achievable. Twenty-five percent reductions in total energy use have been achieved at facilities during times of high energy costs. In light of this, it is the Subcommittee's best professional judgment that a 25% reduction is meaningful and achievable at most facilities even if difficult to achieve in the absence of price incentives.

Goal 2: Reduced Hazardous Emissions and Exposures

These Goals grew out of the belief that certain emissions and exposures resulting from metal finishing processes can and should be reduced. The Goals represent an industry commitment to "cleaner" environmental performance at individual facilities.

Goal 2(a); 90% reduction in organic TRI chemicals, and a 50% reduction in metals, emitted to air and water. This Goal is achieved when the annual emissions to air and water from a facility of organic TRI chemicals are 10% or less, and of metals is 50% or less, than the facility's 1992 emissions. With respect to acids, in-process reuse and recycling is encouraged, and 100% neutralization before release is expected. The intent of this goals is to encourage facilities to analyze their materials use and actively look for ways to change and improve their processes to reduce releases of toxic materials to the environment. Facility-specific assessment may include consideration of alternative materials that may be more effectively used in metal finishing processes.

The TRI list is being used for organic chemicals because it is the best tool currently available; it covers most of the chemicals of concern, and it avoids the need for additional burdensome data gathering. A number of metal finishing facilities do not report under TRI because of their small size, but even these facilities should be able to track

chemical purchase, usage, and recycling fairly easily. In the best professional judgment of the Subcommittee, these percentage targets are meaningful and achievable at most facilities. The metals emissions reduction can be achieved in large part through the same steps taken to achieve the 98% metals utilization performance goal (Goal 1(a)).

Goal 2(b): 50% reduction in land disposal of hazardous sludges and a reduction in the generation of sludges. This Goal is achieved when the annual volume of sludges subject to RCRA Subtitle C from a facility disposed in landfills is 50% or less than in 1992 and the annual volume of sludges generated at the facility is less than in 1992. These reductions will be achieved in part through the same steps taken to achieve the 98% metals utilization Goal 1(a), including more efficient finishing processes. The 50% target will be achievable with increased availability of safe, cost effective pollution prevention and recycling technologies and management practices. De-watering of sludge does not count towards achievement of these targets.

Goal 2(c): Reduction in human exposure to toxic materials in the facility and the surrounding community, clearly demonstrated by actions selected and taken by the facility. Such actions may include, for example, pollution prevention, use of state-of-the-art emission controls and protective equipment, use of best recognized industrial hygiene practices, worker training in environmental hazards, or participation in a Local Emergency Planning Committee.

The Metal Finishing Subcommittee believes that Goal 2(c), like the other facility-based performance targets, requires a means to measure facility commitment and progress toward the objective of reduced worker and community exposure. In order to allow for that type of measurement without mandating specific actions, the Subcommittee agreed to use process-based indicators of performance in Goal 2(c). The listed actions are meaningful and achievable indicators of a facility's progress in reducing human and community exposure.

It is important to note that exposure reductions can be achieved through various means, including chemical substitution or use reduction; capture technologies; and conducting -- and making modifications based on the results of -- "real time" exposure testing that identifies opportunities for reducing workplace exposure levels to toxic materials.

With respect to lowering exposure levels in the surrounding community, some strategies for achieving Goals 2(a)-(b) and certain regulatory requirements, such as the Chromium MACT standard, will simultaneously help achieve this Goal. Decisions about how to achieve other Goals should in every instance be made so as to have a positive impact on exposure levels (i.e., a reduction in exposure) in the facility and the surrounding community.

The Subcommittee recognizes the importance of information and education as a vital tool for industry, government, workers, and the general public to use to reduce environmental risks. The Common Sense Initiative has served as a mechanism for improving stakeholder access to information and dialogue, with a resulting increase in knowledge about the industry. Moreover, several projects undertaken by the CSI Metal Finishing Sector specifically address information and education needs.

Yet the Subcommittee also acknowledges that further research, analysis, and discussion are necessary to assess

exposure and risk factors associated with metal finishing. Part 2 of this document sets forth Agency and other stakeholder commitments to continue to address these issues as part of the Sector's National Environmental R&D Plan.

Goal 3: Increased Economic Paybacks and Decreased Compliance Costs

These "cheaper" goals grew out of the premise that "protecting the environment can be done cost-effectively; it can even have economic payoffs."

Goal 3(a): Long-term economic benefit to facilities achieving Goals 1 and 2. This Goal is achieved when a facility recognizes a long-term economic benefit in conjunction with achieving Goals 1 and 2. Such economic benefit can be derived from a combination of reduced raw material, water, and energy costs; marketing advantages; reduced liability exposure; and the implementation of Goal 3(b), below.

Goal 3(b): 50% reduction in costs of unnecessary permitting, reporting, monitoring, and related activities (from 1992 levels), to be implemented through burden reduction programs to the extent that such efforts do not adversely impact environmental outcomes. This Goal is achieved through the cumulative effect of all burden reduction efforts undertaken in the Part 2 Action Plan.

For example, cost reductions are anticipated from efficiencies in permitting, reporting, and monitoring gained through the Metal Finishing 2000 projects; from consolidating or otherwise reducing redundant or unnecessary reporting requirements through the RIITE Reporting Reform projects; from regulatory reforms that *may* be promulgated under RCRA or the Clean Water Act; or from more efficient compliance by facilities using such tools as the National Metal Finishing Resource Center or the Metal Finishing Guidance Manual. No cost saving measure that would increase risk to the environment or public health will be considered.

Goal 4: Industry-Wide Achievement of Goals Relating to Individual Facilities

The purpose of this Goal is to promote local efforts to achieve Goals 1-3 throughout the country. Achieving this Goal will require a concerted effort by all stakeholders to promote the Goals and to provide technical assistance.

Goal 5: Industry-Wide Compliance with Environmental Performance Requirements

These Goals highlight the need for multi-stakeholder efforts to assist all facilities to achieve compliance with existing environmental performance requirements; to assist metal finishers that want to cease operations to do so in an environmentally responsible manner; and to enforce against any facility owners or operated by a metal finisher that knowingly disregards environmental requirements.

Goal 5(a): All operating facilities achieve compliance with Federal, state, and local environmental performance requirements. This Goal is achieved when, over a six month period, no metal finishing facility in the United States is found to be in non-compliance with Federal, state, and/or local environmental performance requirements. "Environmental performance requirements" include those requirements that, if violated, would directly result in environment consequences or harm to the environment.

Federal, state, and local government entities will have the authority and responsibility to determine whether metal finishing facilities are achieving compliance as defined in this Goal.

A number of the compliance assistance and targeted enforcement recommendations set forth in Part 2 will contribute to the achievement of this goal. Its achievement will also hinge on a successful, concerted effort on the part of all stakeholders to promote the Goals as a means of achieving industry-wide compliance with environmental standards.

Goal 5(b): All metal finishers that wish to cease operations have access to a government sponsored "exit strategy" for environmentally responsible site transition. This Goal is achieved when a multi-stakeholder endorsed program is up and running which provides metal finishing firms with a clear and viable strategy for ceasing operations or selling the business, including real property, in an environmentally responsible manner.

The Subcommittee recognizes that this Goal is important to help address community brownfield concerns. Achieving this Goal will require a concerted effort by the Subcommittee to develop a set of recommendations for addressing the current barriers to environmentally responsible site transition, and a concerted effort on the part of all stakeholder groups to assure such recommendations are implemented.

Goal 5(c): All enforcement activities involving metal finishing facilities are conducted in a consistent manner to achieve a level playing field, with a primary focus on those facilities that knowingly disregard environmental requirements. This Goal is achieved when all facility owners and operators that knowingly disregard environmental performance requirements and/or demonstrate a pattern of non-compliance have been identified and enforced against to the fullest extent of the law. Achieving this Goal will require innovative enforcement initiatives that focus resources on identifying and enforcing against any such owners and operators. Recommendations on how to accomplish this are set forth in the Part 2 Action Plan.

Part 2: Action Plan for Achieving the Goals

Overview

The CSI Metal Finishing Subcommittee has developed this comprehensive Action Plan as an integral component of its Strategic Goals Program. It identifies a broad range of actions that CSI/MF stakeholders commit to undertake over the coming years. Collectively, these actions will overcome many of the barriers and strengthen the incentives that influence the metal finishing industry's environmental performance.

The Subcommittee believes that the collective effect of implementing these actions will be the achievement of the National Performance Goals and the establishment of a new regulatory system -- a system in which regulatory oversight is minimized for top-performing facilities, effective compliance assistance is available to all who want it, and enforcement is targeted on those who deserve it.

A Counterpart to the National Performance Goals

This Action Plan is an essential counterpart to the National Performance Goals set forth in Part 1. The Goals define a cleaner, cheaper, smarter future. This Action Plan defines the means for getting there and shows how all CSI/MF stakeholder groups will contribute to the effort. There is not a one-to-one correlation between all actions and Goals. Rather, the cumulative effect of these actions will be to change the regulatory system in ways that will enable this industry sector to achieve the Goals.

CSI Metal Finishing Stakeholders Will Undertake a Broad Range of Actions

While the Action Plan includes items for metal finishing facilities and industry trade associations, it also includes necessary actions by EPA (Headquarters programs and regional offices), state and local governments, and non-governmental organizations. The Action Plan calls for CSI/MF stakeholders to undertake various types of actions. These range from "nuts and bolts" regulatory changes, to focused programs and initiatives, to broad system and cultural changes.

Some actions can be implemented immediately, while others will require a long-term effort. And while some can be implemented by a single stakeholder group, others will require a cooperative effort. Most of these actions have been drawn from and/or tested through pilot projects undertaken by the Subcommittee and its workgroups. Each stakeholder group has committed to undertake actions within defined timeframes. This Action Plan links the CSI/MF projects in a strategic framework that will beneficially affect environmental performance for the entire metal finishing industry sector.

Focus is on Tiers of Performance

In identifying these actions, the Subcommittee recognized that there are different "tiers" of environmental performance within the industry and that the barriers and incentives for improved performance are different for each

tier. Consequently, the Subcommittee has assessed and identified needed actions for three categories of facilities: those that are at least close to compliance and will make improvements as able; those that would go out of business if they could afford the "site-transition" costs; and those that are consistently out of compliance.

Helping Facilities Move Up or Out of the Tier Structure

Recognizing these tiers of environmental performance -- and that different tiers should be treated differently -- is fundamental to the Subcommittee's vision of the current Goals Program and the future regulatory system that the Program is designed to achieve. The Subcommittee believes that full implementation of this Action Plan will lead not only to the achievement of the National Performance Goals, but also will lay the groundwork for this new performance- and tier-based system, where the scope of the requirements imposed on a regulated facility will reflect the facility's current and past performance.

Under this vision, facilities with a proven track record of environmental excellence will receive benefits in the form of greater operating flexibility, which will be defined through current Sector pilot projects. Requirements for permitting, reporting, and/or moniotring may be relaxed in ways that will enhance a top tier facility's ability to achieve cleaner, cheaper, and smarter performance. Facilities will "move up the tier ladder," becoming eligible for increasingly greater benefits, by achieving the facility-specific National Performance Goals and otherwise exhibiting top-tier performance. On their way up, compliance and technical assistance will be available.

The Subcommittee also envisions a system in which lower tier facilities will move out of the industry altogether. Thus, metal finishers that want to sell their business and real property will receive assistance to do so. And if a metal finisher knowing fails to comply with environmental requirements, strong enforcement action will be taken as part of a consistent, sector-wide enforcement program.

A Rationale for Facility Sign-Up

Subcommittee members feel strongly that there are compelling incentive factors for metal finishing firms to sign-up for the National Performance Goals Program *and make a good faith commitment to strive to achieve the facility-based performance goals.* Industry representatives on the Sub-committee have stressed the need for the Goals Program to identify factors, both tangible and intangible, that the metal finishing trade associations can use to promote the Program to all metal finishers (association members and non-members).

These factors are described below. Most are symbolic in nature and would apply to all metal finishing facilities that commit to the Goals. The flexibility benefits described below would be available to top performing firms, thereby serving as a strong incentive for all participating facilities to reach that level of performance. All CSI Metal Finishing stakeholders will contribute to making these incentive factors as effective as possible.

Demonstrated EPA and Other Stakeholder Commitment to Change the Status Quo

Subcommittee members believe that the best way to "sell" the Goals Program to prospective industry participants is to be able to show stakeholder commitment to the long-

term success of the Program. This commitment is best shown through tangible actions -- changes that are happening now as a direct result of the Sector's projects, even before the Goals Program is put in place. Other constituent groups (e.g., states, local governments (POTWs), non-governmental organizations, communities) also need this demonstrable "quid pro quo" in order to generate broad support for the Goals Program and build public confidence that *all* stakeholder groups will contribute in good faith to its success.

Subcommittee members recognize that facilities and stakeholders are being asked to make major commitments of their own to participate in and support the Goals Program. Prospective participants rightly perceive a certain amount of risk associated with the Program -- in terms of resource commitments, public visibility, changes in policy, etc. If EPA and other originators of the Program cannot clearly show their strong commitment to "deliver" on the Programs' objectives, enabling actions, and flexibility, then prospective participants will lack a strong incentive to take part.

While many of these "delivery" items are themselves prospective, the Subcommittee recognizes that some near-term, project-related actions are possible. These actions can provide a demonstration of stakeholder commitment to change the status quo. Near term actions for all stakeholder groups are listed throughout the Part 2 Action Plan. The Subcommittee believes that such tangible actions can serve as a powerful incentive for participation in and support of the Goals Program -- a demonstration to prospective participants that their own commitment to the Program is a reasonable risk for them to take.

Public Recognition By All Stakeholder Groups

All participating firms will benefit from recognition of their *good faith* commitment and actions to achieve the Program's voluntary performance targets. Improved levels of achievement in the Program will foster greater recognition. The Subcommittee believes that recognition needs to come from all constituent groups -- industry trade associations, government, national and state environmental organizations, and community groups -- as an indicator of public support for facility participation in the Program. Recognition can serve as an incentive by improving stakeholder appreciation of the industry's commitment to "cleaner" environmental performance, thereby reducing the likelihood of *uninformed* outside challenges to the activities of participants in the Program.

One measure of recognition for participants in the Goals Program will be provided through proactive support for the Program by state environmental groups. Starting in states where the Program is being phased-in, state or local environmental groups (with national support) will visit their government officials to promote the Program by discussing the the content and objectives of the National Performance Goals, their anticipated environmental benefits, and potential resource benefits for state and local governments.

This message from environmental organizations will include an emphasis on Part 2 of the Goals Program -- the need for state and local government officials to recognize the commitment and performance of parrticipating firms; the commitment by all stakeholders to make system changes in support of the Program; and the need to use discretionary authority to reward good performing firms while focusing enforcement activities on chronic non-compliers. NGO representatives express their support for both metal finishers *and* state and local government organizations that take part in

the Goals Program.

Recognition may also be used by some participating firms as a marketing and public relations tool, to improve their standing with customers and the surrounding community. The Subcommittee acknowledges that the degree of marketing advantage gained from participation in the Goals Program may vary based on whether metal finishers produce intermediate or end products and whether customers support their proactive environmental performance. The Subcommittee recommends further study of opportunities for metal finishing firms to use the Goals Program for a marketing advantage.

Finally, recognition also should be reflected in decisions made by lending institutions and insurers. The Subcommittee endorses the concept of greater "access to capital" by participating companies in the Goals Program, and has included that concept in Part 2 of the Program with specific "access to capital" commitments by all stakeholder groups. Facilities that demonstrate their environmental commitment by signing up for the National Performance Goals should have greater access to financing for capital improvements that will achieve better environmental performance. *See Issue Area #10, Access to Capital, in Part 2 of this document.*

Testing the Metal Finishing 2000 Flexible Track

The Subcommittee supports the concept that facilities that make progress toward the Goals and maintain consistent compliance with all applicable federal, state, and local regulatory requirements should receive some sort of flexibility benefits -- i.e., greater operational flexibility and reduced compliance costs in exchange for "beyond compliance" environmental performance. This view is consistent with the overarching concept of different forms of government oversight and programs for different "tiers" of facility performance.

As of the date of this document, EPA is working with multi-stakeholder teams in Michigan and Rhode Island, and a single facility in Connecticut, to define and test a "flexible track" for top performing metal finishers through the Metal Finishing 2000 (MF2000) Program. These three initial MF2000 pilots are testing a core set of flexibility benefits and eligibility ground rules, as well as a prototype process for building stakeholder partnerships among companies, regulators (at all levels), and regional community representatives. The Subcommittee supports a thorough evaluation of the "lessons learned" from these and other possible MF2000 pilot projects. This evaluation will provide the basis for stakeholder consideration of possible implementation of a national MF2000 program.

> *See Issue Area #2, in Part 2 of this document, for a detailed description of Flexible Track pilot projects, enabling actions, and stakeholder commitments.*

Although a national MF2000 Program is yet to be defined, stakeholders have highlighted the MF2000 concept as an important incentive factor for facilities to sign up for the Goals Program, because it provides the prospect of a tangible reward (i.e., reduced government presence in day-to-day operations) for good performers. Participation of metal finishing facilities in MF2000 pilot projects, in conjunction with the Goals Program, will provide valuable guidance on the appropriate criteria, process, conditions, and benefits of the flexible track for top tier firms.

An Additional EPA Commitment: Integration of the Goals Program with New Regulations

Metal Finishing industry representatives support the Goals Program in large part as a way to shift the focus of the regulatory system. They perceive the status quo as a continuous series of incremental steps to make existing standards more stringent. The Goals Program is designed to achieve *better* levels of environmental protection through a voluntary, performance-based approach that includes performance targets and system changes to promote continuous improvement. Success of the Goals Program could conceivably change the way in which the Agency looks at future regulations affecting the metal finishing industry, at least with regard to participating firms in the Program.

Yet industry representatives also fear that many facilities may choose *not* to sign-up for the Goals Program because of concern that additional regulatory requirements will continue to come on-line that affect metal finishers across the board, adding administrative compliance burden for participating firms at the same time that they are expected to commit resources to voluntary pursuit of the Goals.

Subcommittee members and EPA officials acknowledge the validity of these views. The Agency therefore agrees, as a matter of policy, to integrate the Goals Program into the rulemaking process for all future regulations that have a direct impact on the metal finishing industry.

In this context, the term "integrate" means several things: (1) to be cognizant of the environmental benefits achieved by metal finishers in the Goals Program at the time a particular rulemaking process gets underway; (2) to consider whether achievements of the Goals Program should affect the objectives and content of prospective rules; (3) if deemed appropriate, to consider innovative regulatory options for dealing differently with the metal finishing industry (or participating facilities in the Goals Program). Such options might include (but are not limited to) a separate set of regulatory requirements for top tier firms, elimination or modification of requirements based on achievements of the Goals Program, and delay or deferral of rulemaking deadlines during the timeframe of the Program.

Each of these integration decisions would be made by the appropriate EPA program offices, and may vary based on the circumstances of each prospective regulation. Circumstances that may impact integration decisions include court-established deadlines, mandatory administrative procedures for rulemaking, statutory requirements, and Federal Advisory Committee processes already underway.

This Agency commitment directly addresses the industry's concerns and should provide an additional, strong incentive for companies to commit to the Goals Program. It also reflects EPA's confidence that a well-structured, performance-based program can complement to a strong regulatory program -- even if the performance-based program is strictly voluntary in nature. The Subcommittee endorses this commitment by EPA because it reaffirms the basic CSI principle that innovative ideas should be integrated with, not isolated from, the Agency's traditional programs. EPA's action should help stakeholders get the Goals Program underway and moving toward better solutions to environmental problems. In essense, the Subcommittee wants to provide the metal finishing industry with a clear opportunity to show that a voluntary, performance-based approach can indeed achieve "cleaner, cheaper, and smarter" results than the regulatory status quo.

Program Operations

The voluntary National Performance Goals Program is the cornerstone of the Strategic Goals. It is the vehicle for achieving Goals 1 - 3 relating to individual metal finishing facilities, and the sector-wide Goal 4. These are the Goals promoting continuous cleaner, cheaper, smarter improvement in participating facilities' performance.

Basic Principles of the Program

The National Performance Goals Program is aimed at metal finishing facilities that are in compliance or striving to achieve full compliance, and desire to go "beyond compliance" if it can be done cost-effectively. Participation in the Program is strictly *voluntary*. By participating in the Program, a firm is committing to work towards achieving the Goals. If it turns out a firm is unable to make reasonable progress towards the Goals, it will be asked to leave the Program.

Within the Program, CSI stakeholders will "market" the Strategic Goals, sign-up facilities to participate in the Program, provide them with information and assistance, and track their progress. The Program will be kept as simple as possible both to administer and to participate in.

Marketing and Facility Sign-up

The major industry trade associations, in part through their local chapters, will take the lead in getting the word out to facilities about the Program and reasons for participating. They will undertake a national "sales" effort promoting the Program through mailings and articles, and at conferences. They will also administer the sign-up of facilities and serve as the primary source of information, both about the Program and means of achieving the Goals. By AESF week at the beginning of 1998, the infrastructure for undertaking these responsibilities will be in place and sign-up will commence.

Signing up simply involves signing a letter committing to make a good faith effort to achieve the Goals by 2002. Upon signing up, facilities will have access to Program incentives, as described below. Participating facilities also will receive an information packet for the Program from the major industry trade associations. This packet will include detailed information about participating in the Program, including the following:

- A summary of Program objectives and ground-rules;
- Worksheets for recording facility baseline performance information and subsequent progress toward the Goals;
- Information on government and industry assistance programs and tools available to all participating firms;
- An Environmental Management System (EMS)-based checklist and guidance for developing a strategy to achieve the Goals.

Technical and Regulatory Assistance for Participants

Administration of the Program and support of participating facilities following sign-up will be the responsibility of a Program Operations Group, to be established prior to Program start-up and consisting of representatives from the industry trade associations and EPA. Technical assistance will be available on such Goal-related

subjects as water and energy conservation, resource recovery, and pollution prevention. Assistance will be provided by representatives from major stakeholder groups, including government, non-governmental organizations, academia, and the consultant community.

Regulatory assistance, concerning permitting, reporting, and monitoring requirements, will be available through EPA, the States, POTWs, and the Sector's compliance tools. Direct assistance may involve jointly exploring strategies for reducing barriers to the achievement of Goals 1 and 2 -- i.e., changes in plant processes, products, and/or management practices -- that are consistent with current law. In situations in which particularly innovative regulatory strategies are under consideration, other local stakeholders should be invited to participate.

Participating facilities are encouraged, but not required, to develop a written strategy or plan for achieving the Goals, preferably based on widely accepted elements of environmental management systems. Facilities that develop a written strategy or plan for achieving the Goals in consultation with Program Partners will have priority status when it comes to getting technical and regulatory assistance putting their proposed changes into practice.

Tracking Facility and Industry Progress Toward the Goals

Participant accountability is a key to long-term program success. The industry trade associations and EPA will share information-compilation responsibilities. The specific elements of the tracking system will be developed by EPA and the industry (with Subcommittee oversight) prior to the start-up of the Goals Program, with oversight of this planning process provided by the Subcommittee. Some generally agreed upon concepts are described below.

A *non-regulatory* worksheet that will be provided to all participating facilities. Participants will be expected to complete an initial worksheet with baseline 1992 performance data (or more recent data if 1992 information is not available). As participating facilities move forward in identifying and implementing strategies for achieving each Goal, they will be asked to share information concerning their progress. Such information may include the types of changes they have adopted, their cost, and their results (in terms of reduced water or energy usage, reduced hazardous emissions, savings in compliance costs, etc.).

The worksheet will be designed to accurately reflect facility progress toward the Goals, without adding undue burden. It will require participating facilities to certify whether they have been cited for non-compliance during the reporting period, but will not require duplicative reporting of detailed compliance data. Federal, state, and local authorities will remain the final arbiters of a facility's compliance status, using existing reporting requirements and databases.

Firms will submit worksheets periodically (a six month interval has been suggesteed) to a neutral (non-governmental) entity to be selected by the Program Operations Group. Facility-based data will then be provided to the industry trade associations to evaluate the progress of participating firms toward achievement of Goals 1-3.

Aggregated facility data, measuring progress of the industry as a whole toward achievement of Goals 4 and 5, will be provided to all stakeholder groups. In addition to providing funding for data collection efforts, EPA will assist

in evaluating the aggregated data, for the benefit of all stakeholders monitoring the progress of the Goals Program.

EPA Will Take the Lead in Funding the Goals Program

EPA will provide funding for implementation and ongoing operation of the National Performance Goals Program, with in-kind contributions provided by the industry trade associations and other stakeholder groups.

Long-Term Oversight of the Goals Program

A multi-stakeholder committee will oversee the Goals Program for the duration of its existence. The CSI Metal Finishing Subcommittee will serve this role as long as the Subcommittee exists. Before it disbands, it will advise EPA on establishing a balanced group of stakeholder representatives to maintain long-term oversight of the Program.

This oversight role involves monitoring the progress of the Program, based on the aggregated performance data. These data will be supplemented with information from EPA and other stakeholders on all aspects of Program operations, including continuing implementation of the actions described in the next section. The committee will then recommend changes in the Program as needed to ensure its success. Such changes may include refinements to the Performance Goals themselves, or changes in specific enabling actions and commitments. The oversight group also will consider options for further action beyond the target year of 2002. EPA will provide operations support to this oversight committee.

Subcommittee Will Review Implementation Plans

The primary concepts, structure, performance targets, and action plan of the Strategic Goals Program have been established by the Subcommittee in this document. However, there are many operational details of the Program have yet to be fully defined. A number of these issues have been noted in the preceeding pages; these and many others will be addressed as the Goals Program infrastructure, including its long-term accountability and oversight mechanism, is created.

The Subcommittee believes it is acceptable and necessary to move forward with implementation of the Goals Program at this time, because many of these issues can only be adequately addressed through the experience of putting the Program into place. The Subcommittee will continue to oversee this planning process for Program implementation, and will maintain the final authority to resolve conflicts that arise (if any). EPA will provide written materials to Subcommittee members to enable them to keep informed and involved during the implementation process.

Major Enabling Actions

Project Based System Changes

The CSI Metal Finishing Subcommittee has identified a number of major enabling actions as integral to the Strategic Goals Program and the achievement of both the facility-specific and sector-wide goals. Many also play a key role in the effort to develop a full "flexible track" regulatory system. Each of the enabling actions set forth below has the broad-based support of CSI/MF Subcommittee members. Most of these actions have been drawn from and/or tested through pilot projects undertaken by the Subcommittee and its workgroups. The actions are therefore grouped according to nine key issue areas addressed by the Subcommittee. Each

is the product of thorough analysis and deliberation.

Actions Focus on the Performance "Tiers"

The enabling actions are based, in large part, on the principle that all CSI Metal Finishing stakeholders have a common interest in focusing resources on actions that will move facilities up or out of the tier hierarchy -- on assisting those who want to improve their environmental performance; on providing a strategy for environmentally responsible site transition; and on enforcing against those who are unwilling to maintain compliance.

Major Commitments By All Stakeholder Groups

In addition to the major enabling actions listed in this section, the Subcommittee also endorses an extensive set of stakeholder group commitments -- specific actions and objectives for each stakeholder group that are *essential* components of the enabling actions. These stakeholder commitments reflect the broad input of Subcommittee members and many other stakeholder group representatives.

The enabling actions and stakeholder commitments listed in this document are broadly stated. The Subcommittee members recognize that each commitment item listed below entails an implicit and much more detailed set of actions that must be taken in order for the stakeholder groups to be able to meet their respective commitments. It is the responsibility of each stakeholder group to ensure that all necessary actions are taken to meet their commitments, in support of the enabling actions and the overall Goals Program.

How This Section Is Organized

The enabling actions and stakeholder commitments of the Strategic Goals Program are grouped according to the nine major issue areas identified for this industry, with an additional area addressing stakeholder buy-in:

(1) Stakeholder Commitment to the Overall Program;
(2) Flexible Track (Tiers 1 and 2(a));
(3) Waste Minimization and Recovery;
(4) Reporting and Right-to-Know;
(5) Compliance Tools and Assistance (Tiers 1 and 2);
(6) Research and Technology;
(7) Industrial Pretreatment;
(8) Environmentally Responsible Site Transition (Tier 3);
(9) Enforcement for Chronic Non-Compliers (Tier 4);
(10) Access to Capital.

Issue Area # 1: Stakeholder Commitment to the Overall Program

Enabling Actions:

In 1997, undertake broad "marketing" of the Goals Program to all major stakeholder groups; achieve broad stakeholder group understanding and support for the Program's objectives, concepts, and elements and concepts; and generate broad stakeholder group support for the objectives, targets, enabling actions, and flexibility approaches of the Program.

Starting in 1998, begin phase-in implementation of all aspects of the National Performance Goals Program and the enabling actions set forth in this document. All stakeholder groups will understand and fulfill their roles in this implementation effort, as described in the commitment actions set forth in this document. The overriding consideration is to accomplish the goal of constant improvement without increasing worker exposure or risk. Innovative approaches will be used to characterize and manage risks to workers and surrounding communities. Results that demonstrate reduced worker risk will be incorporated into recommended shop practices to the maximum degree possible.

Background:

These enabling actions are implicitly a part of all other parts of the Action Plan for the Strategic Goals Program, described in the remainder of this document. The CSI Metal Finishing Subcommittee nevertheless believes that it is important to highlight here the commitment of all relevant stakeholder groups to "sell" the Goals Program to a wider audience and to fulfill their commitments in the Action Plan as an essential means of helping participating facilities and the industry as a whole achieve the National Performance Goals.

"Relevant" stakeholder groups include (but are not limited to) national industry trade associations and their regional chapters, individual states and their national environmental organizations, POTWs and their national associations, national environmental organizations, organized labor organizations that deal with metal finishing facilities, community organizations in areas where metal finishing is done, and EPA at both the national program and regional office levels.

The Subcommittee notes several crucial themes for building stakeholder commitment to the Program, among them: its "cleaner, cheaper, smarter" objectives and multi-stakeholder origins; its voluntary performance basis, supported by enabling actions; the current emphasis on Program implementation and oversight; and the concept of "trusting" industry to succeed in voluntarily achieving the performance goals, with verification of and accountability for the results.

Specific Stakeholder Group Commitments:

Metal Finishers	National Associations (NAMF, AESF, MFSA) "market" the Program through regional outreach strategy; "Charter100" industry leaders commit to sign-up.
EPA	Agency leadership commits to the Goals Program document and builds Goals Program commitments into Operating Plans and Performance Partnerships.
States	Subcommittee member states push for "buy-in" by ECOS and NGA and their leadership of state implementation.
POTWs	National associations (AMSA, WEF, ASIWPCA) create a national outreach and "sign-up" program for member POTWs.
National Non-Governmental Organizations	Leaders express public support for the Program and work to "market" the Program to state and local groups.
Labor Unions	Leaders express (and communicate widely) support for the Program from a jobs and environment perspective.

Issue Area #2: Flexible Track (Tiers 1 & 2(a))

Actions taken to explore development of a flexible track for metal finishers in the Strategic Goals Program will be based on stakeholder experience with the Metal Finishing 2000 (MF2000) Program. The goal of the MF2000 Program, now being tested on a pilot basis, is for federal, state, and local governments to encourage facilities to achieve superior environmental performance by offering top performing facilities greater operational flexibility, using existing flexibility mechanisms that are available under current regulations.

Enabling Actions:

In 1998, complete the current MF2000 pilot projects in Michigan, Rhode Island, and Connecticut, and evaluate the effectiveness of the process and the results of the initial pilot projects. Prepare an evaluation ("lessons learned") document for review by an EPA-led, multi-stakeholder group. Provide recommendations on possible further development/expansion of state-based MF2000 pilot projects.

In 1999, prepare follow-up evaluation documents for ongoing state pilot projects, if any. Complete a multi-stakeholder assessment of environmental, economic, and other impacts of the MF2000 Program in general. Based on the results of the EPA-led stakeholder assessment, consider whether and, if appropriate, how to implement a national MF2000 Program.

If there is endorsement of a national MF2000 Program by EPA, the metal finishing industry, states, POTWs, and other stakeholder groups, **establish a national MF2000 Program in 2000. The national MF2000 Program will not be implemented without broad stakeholder support.**

Background:

Metal finishers often have insufficient incentive to go beyond baseline compliance standards and pursue Goals 1 and 2. In some instances, the current regulatory system actually creates a disincentive -- the transaction costs associated with "minor" permit modifications and additional monitoring can tip the scale away from "beyond compliance" performance. To address this, CSI/MF stakeholders in MF2000 pilot projects are developing new approaches that make use of the flexibility inherent in existing regulations. The current pilots are operating in Michigan, Rhode Island, and Connecticut. *This background section highlights important aspects of these pilot projects; the core program elements described here will provide the basis for deciding whether to expand MF2000 in the future.*

Flexible Track Background, con't.

MF2000 is designed for facilities that exhibit a pattern of consistent compliance, want to further improve their environmental performance by achieving National Performance Goals 1 and 2, and are willing to work with their regulators, workers, and community to assure performance accountability. Under the MF2000 concept, industry performance leaders would receive operational flexibility (i.e., less burdensome permitting, monitoring, and reporting requirements) in recognition of their good performance and as an incentive to seek the ambitious performance goals. The current pilot projects are *not* testing flexibility benefits that negate regulatory standards. Rather, they are testing new ways in which federal, state, and local governments can work together and with the regulated community to take full advantage of existing flexibility mechanisms to promote and reward consistent compliance and continuous environmental improvement.

Given this objective, broad stakeholder involvement is critical to project success. The current pilot projects are being designed and implemented by EPA Headquarters and regional offices, regional industry trade associations, the states of Michigan, Rhode Island, and Connecticut, the POTWs to which the participating facilities discharge their wastewater, and other local stakeholders. The pilot projects vary somewhat based on the issues, priorities, and capabilities of local stakeholders, as well as the range of flexibility allowed by current state and local regulations. However, experience to date indicates that MF2000 projects should encompass the following core elements (which will be further defined and endorsed by stakeholders based on the results of the MF2000 pilot projects):

- Review of compliance history of all applicant facilities;
- Specific criteria defining qualified (top performing) facilities, including consistent compliance with federal, state, and local environmental performance requirements for a period of at least one year (or longer) prior to their application;
- Public identification of participating facilities;
- Periodic review and renewal of MF2000 participant status;
- Local stakeholder participation where the MF2000 Program is being implemented.

Flexible Track Background, con't.

The flexibility benefits that are likely to be provided to participating facilities in the MF2000 pilot projects will reflect specific regulatory requirements in the test regions, as well as specific needs of qualified metal finishers. While the Subcommittee recognizes the need for these variations in the MF2000 program, there is an additional need for certainty that operational flexibility will be granted to MF2000 facilities in a consistent manner. Although the initial pilot projects are not yet completed or fully evaluated, their work to date provides the several examples of MF2000 flexibility options that may serve as models for consistent application of flexibility benefits by state and local government authorities.

Each of the following options involves discretionary decisions by POTWs to provide various types of operating flexibility under existing wastewater discharge permits. While the flexibility for the POTWs to provide these benefits already exists under current Clean Water Act (CWA) regulations, the stakeholder dialogue of the MF2000 pilots, particularly among federal, state, and local government officials, is providing the participating POTWs with greater certainty that their decisions will not lead to adverse environmental consequences or be challenged or otherwise penalized. Pilot stakeholders agree that the MF2000 process was a necessary catalyst for these pilot project actions to occur, and that the following flexibility benefits are reasonable for top tier facilities:

- ***Wastewater discharge permit flexibility for process modifications:*** A number of MF2000 pilot facilities want to modify their existing processes or install new equipment for pollution reduction without having to undergo the burdensome and time-consuming process of up-front permit modification. Examples of facility improvements in the current pilots include: re-configuration and/or modification of existing equipment, installation of additional rinse tanks, initiation of pollution prevention/source reduction techniques or practices, and installation of equipment to treat incoming water for production use. POTWs have the authority to grant this sort of flexibility, provided that the modification does not add any regulated constituents not already included in the company's existing permit. The CWA regulations require them to develop an enforcement response plan (40 CFR 403.8(f)(5)) and respond to all instances of non-compliance (40 CFR 403.8(f)(2)(vi)). The degree of "regulatory discretion" available to a POTW is defined in their enforcement response plan. Those POTWs with greater latitude are able to provide this sort of permit flexibility for MF2000 participant facilities.

Flexible Track Background, con't.

- ***Reduced pretreatment monitoring and reporting for low discharge facilities:*** Several pilot project facilities would like to install closed-loop and water conservation processes and, in return, receive reduced monitoring and reporting requirements under their locally-issued effluent discharge permit (because their effluent should, by definition, be cleaner). POTWs in the pilot projects are working with the metal finishing facilities and their state and EPA regional authorities to provide this benefit within the parameters of the Clean Water Act and the POTWs' own operating permits. The pilot is consistent with (though not tied to) EPA's current *proposed* rule to define and exempt de minimis industrial facilities -- e.g., facilities that never discharge concentrated wastes such as solvents, spent plating baths, filter backwash, and sludges, and do not discharge more than a de minimus amount of process wastewater per day (defined in the rule).

- ***Less frequent pretreatment monitoring for pollutants not in system:*** Several pilot project facilities are testing ways to reduce monitoring for certain substances that clearly are not being used at the facility. The pilots will help EPA to develop its current *proposal* to allow this monitoring flexibility on a broader scale. Metal finishers currently are required under 40 CFR 403.12(e)(1) to sample for all pollutants regulated by their categorical pretreatment standard, even if certain pollutants regulated by the standard are not reasonably expected to be present at a facility. POTWs can set the frequency of such monitoring. In the MF2000 pilots, the POTWs will test a reduction in the frequency of sampling for these types of pollutants, within the existing standards of 40 CFR 403.12. The appropriate amount of sampling will depend on the specific processes and pollutants involved, plus company certification that pollutants are not present. The POTWs still must comply with current requirements for annual sampling and analysis.

In addition to the flexibility benefits described above, a fourth catagory of benefits is being tested in the initial MF2000 pilots. Top tier metal finishers often find it burdensome and costly to wait for government help and/or permit approval to make environmentally beneficial improvements. The pilot projects indicate that expedited government assistance and decisionmaking for MF2000 participant companies, provided by all levels of government and all media programs, will enable those firms to test and install new environmental protection equipment more quickly and effectively. This benefit will provide an additional economic pay-off of greater responsiveness to customer product demands.

MF2000 pilot projects will be thoroughly evaluated by an EPA-led, multi-stakeholder group. Project results will be used to determine *whether* to proceed with a national MF2000 Program and, if so, *how* such a program should be structured. Full implementation of such a program would require extensive use of partnership arrangements with states and POTWs *(see commitments that follow, below).*

Flexible Track -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Current pilot participants maintain open lines of communication with workers and community; openly share results of pilots with CSI and regional stakeholders.	Industry trade groups actively promote participation in MF2000 Program, including such prerequisites as "beyond compliance" performance, open communication with workers and communities, and open access to data on environmental performance.
EPA HQ and Regions	Test MF2000 in MI, RI, and CT pilot projects; define the process and primary benefits for stakeholder review in an evaluation ("lessons learned") document; promote regional and state "buy-in" for MF2000 in connection with the Goals. Expand outreach to all stakeholders on the flexible track -- basic concepts and content, lessons from initial pilot projects, plans for additional state-based MF2000 pilots.	Starting in mid-1998, use initial pilot experience to consider additional state-based MF2000 pilot projects; provide state and local government regulators with guidance and support to grant flexibility in pilot projects; maintain multi-stakeholder review of pilot project evaluations. By 1999, facilitate stakeholder evaluation of pilot projects and decision on whether to establish a national MF2000 Program.
States and POTWs	State and POTW participants in the pilot projects work cooperatively to test MF2000 flexibility approaches. ECOS, AMSA, WEF, and media-specific state environmental associations promote broad membership support and recognition of pilots and "flex track" concept.	Starting in 1998, develop additional state and local MF2000 pilot projects, based on the MI/RI/CT pilot prototype; ECOS, AMSA, and WEF assess and refine state-based MF2000 pilots. In 1999, participate in stakeholder dialogue on whether to establish a national MF2000 Program.
NGOs (Environmental Groups, Labor, Community Groups)	Provide ongoing feedback and public support for (1) the concept of different levels of industry performance and government response, (2) the potential environmental payoffs of "performance based" approaches, (3) MF2000 pilots to test the "flexible track." Expand outreach on CSI Metal Finishing Goals and MF2000 to members and constituents through mailings, newsletters, presentations at annual meetings, Web sites, etc.	National groups provide public recognition of MF2000 and actively promote better community understanding of the benefits of "flexible track" approaches for top performers. State and local groups get actively involved with MF2000 pilot projects, working with state and local government officials. In 1999, participate in stakeholder dialogue on whether to establish a national MF2000 Program.

Issue Area #3: Waste Minimization and Recovery

Enabling Actions:

In 1998, propose changes to the RCRA 90-day hazardous waste accumulation requirements to reduce barriers to pollution prevention and on-site and off-site metals recovery in the metal finishing industry, without reducing current worker protection requirements.

In 1998, consider options for changing the RCRA regulations pertaining to F006 electroplating waste so as to promote pollution prevention and on-site and off-site metals recovery without reducing current worker protection requirements, reflecting ~~and to reflect~~ the consensus views of the Subcommittee, *provided that the sludge benchmarking study supports such changes*.

Background:

These enabling actions are drawn primarily from the Sector's RCRA Metal Finishing F006 Wastewater Sludge Project: This project addresses some of the key RCRA issues related to metal finishing wastes. Electroplating waste (F006) is a RCRA regulated hazardous waste generated by thousands of metal finishers. F006 often contains potentially valuable metals along with other toxic constituents. A key leverage point for enabling facilities to achieve Goals 1(a), 2(a)-(c), and 3(a)-(b) involves the regulatory treatment, technologies, and management strategies concerning the generation, handling, treatment, and disposal of sludges. The Subcommittee's goals for this issue area are: (1) to complete an objective benchmarking study of the composition, quantities, ~~and~~ characteristics, and handling practices of metal finishing wastewater treatment sludges, using current national and regional sampling data; (2) to reduce the generation and toxicity of F006 sludges through pollution prevention measures; (3) to improve the recoverability of metals contained in the sludges in a cheaper, smarter fashion, while ensuring no transfer of hazards to other environmental media or the workplace; (4) to reduce the volume of sludges destined for land disposal.

The first phase of this project was a benchmarking analysis of F006 constituents, using national and regional sampling data. The data generated in the benchmarking study is first being used by the RCRA Project Team to develop and assess options for reducing barriers to pollution prevention and on-site and off-site metals recovery in the RCRA 90-day hazardous waste accumulation requirements. The benchmarking data will be considered by EPA along with information from other F006 initiatives currently underway. The CSI/MF Subcommittee will continue to analyze F006 management practices and to explore cleaner, cheaper, and smarter alternative approaches.

Waste Minimization and Recovery -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Actively promote industry sign-up and commitment to the National Performance Goals for resource utilization and waste minization.	Starting in 1998, establish trade association sponsored programs to vigorously promote waste minization as the appropriate next step to on-site recovery.
EPA HQ and Regions	Define appropriate changes in 90-day accumulation requirements and begin drafting a fast-track proposal . Provide guidance (based on existing federal law and enforce-ment policies) to EPA regional inspectors, states, and the industry on appropriate enforcement sanctions for minor RCRA violations. Complete Phase 1 of the F006 Benchmarking Study and facilitate stakeholder evaluation of results and options. Clarify and coordinate outreach regarding existing requirements relating to worker exposure and the handling of F006.	In 1998, propose amendments to RCRA 90-day accumulation requirements that reflect the recommendations of the Metal Finishing Subcommittee. Work with states to adopt changes. Starting in 1998, provide guidance (based on existing federal law and enforcement policies) to EPA regional inspectors, states, and the industry on existing flexibility in 40 CFR 262.34 regarding waste disposal and/or recycling. In 1998, consider changes to the RCRA regulations pertaining to F006 that reflect consensus views of CSI Subcommittee on necessary improvements *(provided that data indicate significant improvements in F006 chemical composition and recyclability, due to improved industry waste management practices).* Work with states to adopt any changes made. Ensure consistent enforcement and a greater emphasis among government inspectors on RCRA compliance.
States and POTWs	With leadership from ECOS and ASTSWMO, actively support consensus Subcommittee recommendations re: proposed RCRA changes.	With leadership from ECOS and ASTSWMO, ensure consistent enforcement and a greater emphasis among government inspectors on RCRA compliance. States adopt proposed changes in RCRA regulations resulting from consensus Subcommittee recommendations.
NGOs (Environmental Groups, Labor, Community Groups)	Actively support consensus Subcommittee recommendations re: proposed RCRA changes.	Provide public recognition of good performing firms and active support for RCRA reform initiatives.

Issue Area #4: Reporting and Right-to-Know

Enabling Actions: **In 1997, take the following national regulatory actions:**

Implement RCRA Land Disposal Restriction (Land Ban) Notification for reduced reporting frequency, and initiate outreach efforts to metal finishers on Land Ban changes;

Propose reductions in pretreatment compliance reporting for facilities with good compliance records through use of methods established in EPA's *Interim Guidance for Performance-Based Reductions of NPDES Permit Monitoring Frequencies* (EPA 833-R-96-001, April 19, 1996);

Start work on automating the RCRA Hazardous Waste Manifest System.

Starting in 1997, work with RIITE pilot states Arizona and Texas to implement the following reforms, identified through the RIITE Business Process Reengineering (BPR) process:

In both states, pilot electronic reporting using the Internet;

In Texas, begin developing the Facility Identifier/Profile concept for submitting standard, static facility data (i.e., reported information that rarely changes from one reporting period to another) and sharing such data among regulatory databases;

In Arizona, begin developing a Central Point of Contact program for reporting and accessing compliance data.

Starting in 1997, create the RIITE "toolbox" -- a compendium of resources that highlights a replicable RIITE/BPR process and provides states and localities with tools and structured approaches to achieve reporting and information management reform.

Starting in 1998, institute and promote the Facility Identifier/Profile concept with frequently submitted compliance reports in other states, as a basis for possible expansion of the concept.

By 2002, create a system for state-of-the-art electronic reporting and broad public access to reported data, with an emphasis on education and outreach to community groups.

Reporting and Right-to-Know, continued

Background:

These enabling actions are drawn primarily on the Sector's Regulatory Information Inventory Team Evaluation (RIITE) Program. The RIITE program has applied business process reengineering techniques to examine federal, state, and local reporting requirements for metal finishers across all environmental media. The project team has identified ways to reduce paperwork burden, improve access to data for local communities and other members of the public, and promote better environmental performance. The results of regional projects in Arizona and Texas have been used to develop national and state-specific policy recommendations on ways to reengineer existing reporting requirements to:

- improve process efficiency by collapsing duplicative or overlapping information requirements;
- expand public access to error-free, timely information;
- reduce the burden on industry submitters and government agencies;
- create a replicable RIITE program for use by all states; and
- institute national reforms in data requirements and processing.

As an integral part of the strategy for enabling facilities to achieve Goal 3(b), and because of other numerous and substantial cleaner, cheaper, and smarter gains that can be made in this area (including more effective state, POTW, and public access to reported data), the CSI/MF Subcommittee endorses the work and conclusions of the RIITE Program and will continue to actively promote its implementation nationwide at all levels of government, particularly the enabling actions listed above.

Reporting and Right-to-Know -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	National trade associations and regional chapters actively participate in AZ and TX pilot projects.	National trade associations actively promote the use by member compnaies of electronic reporting formats and tools, as those tools come on-line, linking with the NMFRC. Starting in 1998, regional branches of trade associations proactively work with community leaders (government and NGO) to use RIITE tools to improve public and worker access to environmental performance information.

Reporting and Right-to-Know: Stakeholder Group Commitments, continued		
Stakeholder Groups	**Near -Term (1997)**	**Long-Term (1998-2000)**
EPA HQ and Regions	Incorporate RIITE recommendations into the national rule changes listed above. Complete "to be" modeling in AZ and TX for water and hazardous waste regulatory requirements, and begin implementation of changes in AZ and TX. Begin development of RIITE "tool box"; expand application of the BPR process to EPA media programs. Complete prototype for standardized facility data. Test prototype SmartForm, Internet access to forms, and Electronic Data Interchange.	In 1999, complete pretreatment streamlining rulemaking. Starting in 1998, work with willing states to expand testing of the Facility Identifier/Profile concept. Starting in 1998, EPA Regions promote use of the RIITE "toolbox" (BPR process and other tools) in all states. In 1998, EPA media programs begin analysis of their regulatory reporting requirements, to achieve Administration goals for reduction in reporting burden. By 2000, create a system for state-of-the-art electronic reporting and broad public (including community) access to reported data, presented in way that allows the public to draw accurate conclusions about environmental impacts.
States and POTWs	POTWs: AMSA, WEF, and ASIWPCA promote adoption of electronic formats for pretreatment data; work with RIITE program to consolidate notifications (e.g., for spills and upsets). States: ECOS members and other media-specific state groups recognize and actively support RIITE concepts, "tools", current AZ and TX pilots, and expansion of prototype to a third state. Texas: Begin developing Facility Identifier/Profile project,. Arizona: Begin developing Central Point of Contact program.	Starting in 1998, ECOS actively promotes the application of the RIITE "toolbox" in all states, plus expanded testing in states of the Facility Identifier/Profile concept.. In 1998, Texas implements Facility Identifier/Profile program and Arizona implements Central Point of Contact program.
NGOs (Environmental Groups, Labor, Community Groups)	National groups and NGOs in regional pilot areas provide continued support and input to pilots, defining public and worker data needs (for general understanding and emergency response).	National groups provide public recognition of RIITE program and its dual goals of burden reduction and improved access to data; promote community support for the RIITE program in states where it is being applied.

Issue Area #5: Compliance Tools and Assistance (Tiers 1 & 2)

Enabling Actions:

Promote broad industry use of the NMFRC for compliance and technical assistance and promote widespread facility purchase and shop floor use of the Metal Finishing Guidance Manual.

In 1997, establish a coordinated, "customer-oriented" compliance assistance program for the industry, with tools and services provided by EPA, state governments, industry, and others. Ensure that the NMFRC, the Manual, and training programs are comprehensive (including worker training components) and fully linked and integrated.

In 1997, complete the current CLEAN-P2 pilot projects in New Hampshire and Maine, and complete evaluation of the process and the results of the initial pilot projects.

In 1998, complete and evaluate additional CLEAN-P2 pilot projects. The pilot projects will be available to small and medium sized metal finishers and will offer pollution prevention site assessments through existing state pollution prevention technical assistance programs and compliance assessments. If regulatory violations are discovered, the program will offer enforcement relief in conformity with EPA's Audit Policy and Small Business Assistance Policy. Prepare an evaluation ("lessons learned") document for review by an EPA-led multi-stakeholder group. Provide recommendations on possible further development/expansion of CLEAN-P2 pilot projects.

In 1999, prepare follow-up evaluation documents for ongoing pilot projects, if any. Complete a multi-stakeholder assessment of environmental, economic, and other impacts of the CLEAN-P2 program in general. Based on the successful completion of the CLEAN-P2 pilot projects and EPA's internal evaluation, implement programs, like CLEAN-P2, that utilize incentives such as the Audit Policy and the Small Business Assistance Policy to increase compliance and environmental improvements.

Background:

These enabling actions are drawn primarily from the National Metal Finishing Resource Center, the Metal Finishing Guidance Manual, EPA New England's CLEAN-P2 Project, and training programs sponsored by the American Electroplaters and Surface Finishers Society.

Compliance Tools and Assistance Background, con't.

Many metal finishing facilities have insufficient access to information and assistance regarding compliance requirements and strategies. Compliance assistance tools and services are a major, cost-effective leverage point for achieving 100% compliance (Goal 5(a))and promoting "beyond compliance" performance, particularly among smaller job shops. The Metal Finishing Subcommittee has endorsed development of a number of "customer-oriented" tools and services that, together with the industry's own technical assistance activities, provide a comprehensive compliance assistance program for the metal finishing industry.

The Subcommittee believes that a coordinated compliance assistance program is critical to success of the Goals Program. The National Metal Finishing Resource Center (NMFRC) provides up-to-date, on-line information about technical and compliance-related issues that affect all aspects of metal finishing operations. The NMFRC is complemented by the Metal Finishing Guidance Manual, a plain-language tool for use by shop floor managers to ensure continuing compliance with regulatory requirements and active consideration of pollution prevention approaches and environmental management systems.

The CLEAN-P2 Program has been tested in two state pilot projects in EPA's New England Region. Based on stakeholder experience and an evaluation of the CLEAN-P2 pilots, the Subcommittee believes that small- to mid-sized metal finishing firms frequently do not take advantage of state pollution prevention technical assistance programs (which often are offered free of charge). This hesitancy is not based on a lack of commitment to environmental protection, but rather on anxiety about unknown compliance problems that may be discovered on-site.

The CLEAN-P2 Program is therefore designed to overcome this barrier to improved compliance and pollution prevention by combining pollution prevention assistance and enforcement relief policies as an incentive for improved environmental performance by metal finishers, thereby achieving measurable environmental results and increased compliance on both a facility-specific and industry-wide basis. The possible expansion of this Program will be tested using existing state assistance programs in conformity with EPA's existing audit and small business assistance policies.

Compliance Tools and Assistance -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Create a broad marketing campaign for the NMFRC and the Guidance Manual (together); begin using the Manual as a primary reference tool in AESF training courses; promote facility assessments as an essential first step toward achievement of the National Performance Goals.	By 1999, achieve 100% company use of the Manual and 50% industry use of the NMFRC. By 1999, achieve 100% facility assessment rate among firms participating in the Goals Program.
EPA HQ and Regions	Establish a stakeholder steering group to develop a coordinated compliance assistance program, and to ensure integration of the NMFRC, the Manual, and training programs offered by the industry and other groups; ensure broad access to compliance assistance tools and services. Complete and evaluate the New England CLEAN-P2 pilots; catalog existing state facility assessment and audit programs; based on the results of the CLEAN-P2 evaluation, provide guidance to EPA regions and states on testing CLEAN-P2 in other states (as described in the enabling actions, above).	Starting in 1998, actively promote outreach to states re: the entire compliance assistance program for the Metal Finishing Sector, focusing on linkages with existing state pollution prevention technical assistanceprograms. In 1998, complete and evaluate additional CLEAN-P2 pilot projects (as described in the enabling actions, above). Provide multi-stakeholder recommendations on possible further development/expansion of CLEAN-P2 pilot projects. In 1999, coordinate the assessment of environmental, economic, and other impacts of CLEAN-P2 pilots and the program in general. Based on EPA and other stakeholder review of this assessment, implement programs to increase compliance and environmental improvements (as described in the enabling actions).
States and POTWs	AMSA, WEF, ECOS, and media-specific state environmental groups inform their members about the NMFRC and the Guidance Manual. ECOS advocates for state testing of CLEAN-type programs, helping to link CLEAN-P2 with existing state programs.	Starting in 1998, states and POTWs actively promote the use of the NMFRC and the Guidance Manual within their jurisdictions. ECOS pushes for broad state testing of CLEAN-type programs, including state attorney general support for enforcement relief.

Compliance Tools / Assistance: Stakeholder Group Commitments, con't.		
Stakeholder Groups	**Near -Term (1997)**	**Long-Term (1998-2000)**
NGOs (Environmental Groups, Labor, Community Groups)	National groups promote better national and community understanding of the industry's performance tiers, recognizing that compliance assistance tools and services can significantly improve performance of forms in Tiers 1 and 2. National groups promote acceptance of the CLEAN-P2 concept of enforcement relief for non-egregious violations, linked with environmental benefit through pollution prevention.	Acknowledge and promote the value of the Sector 's primary compliance assistance tools: the NMFRC and the Manual. National groups work with regional trade associations and community groups to support compliance assistance. National groups promote state and community group participation in state-based CLEAN-P2 pilots.

Issue Area #6: Research and Technology

Enabling Actions:

Use the *National Metal Finishing R&D Plan* to focus and coordinate public and private sector metal finishing research and technology development.

Assess and characterize risks in and around metal finishing facilities, consistent with the priorities set in the *National Metal Finishing Environmental R&D Plan*, with resulting information made widely available to the public and used as a basis for policy making.

Create, with substantial stakeholder involvement, a verification process and capability that will serve all stakeholders by providing high quality performance data on commercially available equipment or generic process technologies that address the priorities of the *National Metal Finishing Environmental R&D Plan.* Conduct testing and data reporting on commercially available technologies that are proferred by technology suppliers in a manner that serves the needs of stakeholders. Among the goals of this effort are to provide maximum awareness of new technologies to potential users and to educate all stakeholders as to the key parameters that impact performance. Nothing in this effort shall constitute an endorsement of a specific vendor, supplier, process, or product.

Background:

These enabling actions are drawn primarily from the National Metal Finishing Environmental R&D Plan, and are supported by the Sector's various research and technology projects. The highest quality research on environmental technologies is essential if the National Performance Goals are to be achieved, with all facilities able to achieve compliance and 80% going beyond compliance by achieving Goals 1 -3. Metal finishing facilities need the results of quality research to continually improve their environmental performance and the cost-effectiveness of their environmental management strategies. The Metal Finishing Subcommittee realized that, in order to optimize research efforts, the research agenda for the metal finishing industry needed to be coordinated and prioritized at the national level.

Research and Technology Background, con't.

To this end, CSI Metal Finishing stakeholders developed the ***National Metal Finishing Environmental R&D Plan***, and will follow it in charting the course of future research. The Plan is a customer-oriented R&D strategy for the industry, ensuring that the current research program (including risk characterization, exposure assessment, and technology transfer and diffusion) meets the most significant environmental needs of metal finishers and are accessible to job shops, communities, and other stakeholders.

The Subcommittee-endorsed Chromium Fume Suppressant Demonstration Project and the Approaching Zero Discharge Demonstration Project are addressing priority technology needs for the industry. The Subcommittee also has endorsed a Metal Finishing Pollution Prevention Verification Pilot Project to field test "primarily pollution prevention" technologies and to promote the adoption of proven, effective technologies by metal finishers. It should be noted that the Subcommittee does ***not*** intend to mandate the use of certain technologies to achieve the National Performance Goals. Rather, the intention is that individual metal finishing shops, regulators, and non-governmental organizations will have better information to judge the appropriateness of utilizing various technologies to achieve particular environmental management objectives.

In addition, the Sector's Ad Hoc Risk Characterization Workgroup is engaging in multi-stakeholder dialogue to begin a systematic characterization of risks in and around metal finishing facilities. All of these activities are highlighted in the R&D Plan. Collectively, they and other priority research efforts will help metal finishers to achieve the "beyond compliance" National Performance Goals. This risk characterization dialogue underway in the CSI Metal Finishing Sector *may* also lend itself to a broader, multi-sector CSI discussion. The Metal Finishing Subcommittee will consider whether and how best to raise risk assessment and characterization issues to the CSI Council.

Research and Technology -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Continue participation in national R&D agenda-setting dialogue and CSI-endorsed technology demonstration projects. Actively encourage stakeholder (including worker) participation on project teams and sharing of project data. Continue participation in the CSI multi-stakeholder effort to develop and test means of generating and disseminating information concerning the types and levels of environ-mental and public health risks associated with metal finishing.	Continue participation in national R&D agenda-setting dialogue and CSI-endorsed technology demonstration projects. Increase awareness of new technologies to potential users and educate stakeholders as to the key parameters that impact performance *(pending stakeholder review and consensus on the outcomes of the Metal Finishing P2 Verification Pilot Project).*
EPA HQ and Regions	Starting in 1997, refocus and re-prioritize the national research agenda to follow the *National Metal Finishing Environmental R&D Plan* (as endorsed by the CSI Metal Finishing Sub-committee and supported by the CSI Council). Continue technology demonstration projects for chromium fume suppressants and approaching zero discharge. Continue implementation of the Metal Finishing P2 Verifica-tion Pilot Project, including facilitation of stakeholder dialogue on the development of technology verification protocols. Facilitate stakeholder dialogue on health risks associated with metal finishing processes, considering approaches and tools for assessing exposure and risk-related data (including, for example, the possible use of epidemiological data in a facility/community specific setting) as a means of characterizing risks to workers and surrounding communities. Narrow the questions to be answered to achieve stakeholder consensus on a possible project. Facilitate Subcommittee dialogue to consider whether and, if appropriate, how best to raise cross-sectoral risk characterization proposals to the CSI Council.	Starting in 1998, begin to coordinate with other Federal agencies and private sector organizations on the funding of environmental research and development projects affecting the metal finishing industry, based on the priorities of the *National Metal Finishing Environmental R&D Plan.* *Pending stakeholder review and consensus on the outcomes of the Metal Finishing Pollution Prevention Verification Pilot Project*, start in 1998 to create and use in-plant testing protocols to verify the performance claims of commercially-available equipment and generic process technologies as part of EPA's overall Environmental Technology Verification Program. Starting in 1998, assess health risks of metal finishing processes. Fund exposure and/or risk assessment projects that receive consensus stakeholder (including EPA/ORD) support and are consistent with the priorities of the *National Metal Finishing Environmental R&D Plan.*

Research and Technology:	***Stakeholder Group Commitments, con't.***	
Stakeholder Groups	**Near -Term (1997)**	**Long-Term (1998-2000)**
States and POTWs	Support technology demonstration pilot projects that follow established EPA research protocols. Continue participation in national R&D agenda-setting dialogue and CSI-endorsed technology demonstration projects. Continue participation in the CSI multi-stakeholder effort to develop and test means of generating and disseminating information concerning the types and levels of environmental and public health risks associated with metal finishing.	Starting in 1998, provide reduced compliance burden for facilities that are part of the Strategic Goals Program *(pending stakeholder review and consensus on the outcomes of the Metal Finishing P2 Verification Pilot Project)*.
NGOs (Environmental Groups, Labor, Community Groups)	Support technology demonstration pilot projects that follow established EPA research protocols. Continue participation in national R&D agenda-setting dialogue and CSI-endorsed technology demonstration projects. Continue participation in the CSI multi-stakeholder effort to develop and test means of generating and disseminating information concerning the types and levels of environmental and public health risks associated with metal finishing.	Actively support technology verfication protocols and the reduction of compliance burden for facilities that are part of the Strategic Goals Program identify verified technologies in worker training *(pending stakeholder review and consensus on the outcomes of the Metal Finishing P2 Verification Pilot Project).*

Issue Area #7: Industrial Pretreatment

Enabling Actions:

Starting in 1997, implement the following non-regulatory pretreatment program tools:

Upgrade PIPES on-line info system
Increase sharing of pretreatment program info
Develop training videos for use by small POTWs
Provide "roadmap" of available POTW guidance
Develop cost accounting and budgeting tools for POTWs
Provide guidance for choosing contract labs.

In 1998, change and/or clarify CWA pretreatment regulations to provide flexibility for POTWs to promote effective industrial pretreatment, including appropriate changes in the definition of Significant Non-Compliance.

Background:

These enabling actions are primarily drawn from the Sector's POTW Training, Education, and Incentives Project, as well as ongoing reform initiatives of EPA's Office of Water, the Association of Metropolitan Sewerage Agencies (AMSA), and the Water Environment Federation (WEF). The Subcommittee's work in this area is based on the premise that Publicly Owned Treatment Works (POTWs) have a major impact on the environmental performance of metal finishers (and other industries) that discharge to POTW systems. A key leverage point for improving environmental performance of metal finishers lies in strengthening the capabilities of POTWs as they work with facilities to reduce wastewater discharges cost-effectively. Effective industrial pretreatment programs can contribute to a facility's achievement of Goals 1(a)-(c), 2(a)-(b), and 3(a)-(b).

The Subcommittee-endorsed POTW Project was designed to identify ways to improve the capabilities of lower tier POTWs to manage their industrial users by reducing mass pollutant loadings without limiting industrial activity; and to provide the most effective POTWs with increased managerial flexibility to achieve higher environmental quality at lower cost. The Subcommittee has endorsed the final project report, which provides information on possible tools, programs, and incentives to help POTWs develop more effective pretreatment programs. The report findings are reflected in the enabling actions listed above. EPA’s Office of Water is now taking acton to address all of the findings in the final report.

Industrial Pretreatment -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Initiate partnership relationshsip with AMSA and WEF to promote proactive industrial pretreatment.	Create national programs (co-sponsored with AMSA WEF, and EPA) to provide information, assistance, training, and incentives for proactive industrial pretreatment.
EPA HQ and Regions	Begin to implement the pretreatment program tools listed above, as endorsed by the MFSubcommittee. Propose CWA pretreatment regulatory changes to establish and/or clarify flexibility for POTWs, including appropriate, stakeholder-supported options for changing the definition of Significant Non-Compliance.	In 1998, finalize changes in the pretreatment regulations to promote more effective industrial pretreatment. By 1998, EPA Regions work with all "delegated" states to change state statutes and/or regulations as necessary to allow POTW flexibility consistent with the final changes in the CWA regulations.
States and POTWs	AMSA, WEF, and ASIWPCA: Actively "market" EPA-generated pretreatment program reforms and tools (to POTW members and states). AMSA, WEF, and ASIWPCA: Develop a consensus postion with all stakeholders on reasonable changes in pretreatment regulations; define desired changes in SNC provisions.	AMSA, WEF, and ASIWPCA: Starting in 1998, actively "market" EPA-generated pretreatment program reforms and tools; work with EPA regions and all "delegated" states to change state statutes and/or regulations as necessary to allow POTW flexibility consistent with the final changes in the CWA regulations.
NGOs (Environmental Groups, Labor, Community Groups)	Develop a joint position with AMSA and WEF on necessary changes in the pretreatment regulations.	Acknowledge and work cooperatively to define appropriate levels of flexibility for POTWs to promote better industrial pretreatment.

Issue Area #8: Environmentally Responsible Site Transition (Tier 3)

Enabling Actions:

In 1998, implement a replicable, state-based EPA "exit strategy" program, providing:

Regional transition manuals
Regional and state Tier 3 programs
Direct redevelopment links for metal finishing sites.

Background:

This enabling action is drawn from the Sector's Case Studies of Environmentally Responsible Site Transition for Tier 3 Firms. Tier 3 firms are outdated metal finishing job shops. When owners are ready to transition out of the business, factors such as declining finances or environmental liabilities form site contamination make the transition difficult, if not impossible. The result may be facility shutdown with no assets left to clean the site for future uses. The job site may then become a "brownfield" area. The CSI/MF Subcommittee authorized case studies of representative Tier 3 facilities in three states. The resulting report was endorsed by the Subcommittee. The report identifies factors that lead certain metal finishers to become Tier 3 firms, and offers possible transition strategies for these facilities.

Goal 5(b) calls for a government sponsored "exit strategy" for metal finishers who wish to get out of the business. Such a strategy would help significantly to reduce future "orphan sites" and brownfields while also improving the options of many metal finishers. The primary elements of a viable site transition exist strategy are listed in the enabling action, above. Various EPA Headquarters and Regional Offices are acting on these recommendations from the Tier 3 report, developing pilots and program plans to develop a "brownfield prevention exit strategy" for these types of firms -- to help owners of Tier 3 firms pursue environmentally sound transition of their property, rather than abandon their sites.

It should be emphasized that "environmentally sound" site transition entails compliance with all applicable environmental requirements, so as to fully protect public health and the environment. The point of this project area is to take a proactive approach in helping willing candidate facilities plan and achieve responsible site transition, thereby preventing the continuation of sub-standard environmental performance and/or site abandonment (i.e., preventing a worsening of environmental impacts over time).

Environmentally Responsible Site Transition -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Provide feedback and support for ongoing EPA efforts to develop and test Tier 3 strategies.	Trade associations actively market the Transition Guides as part of the industry's compliance assistance program. Starting in 1998, develop regional trade group programs to help all metal finishers (including prospective purchasers and Tier 3 facilities) plan for site transition.
EPA HQ and Regions	Create prototype Transition Guides in Region 1 (RI) and Region 5 (IL); work with multiple stakeholders to map out components of "exit strategies" in those states.	Starting in 1998, implement an EPA "exit strategy" program, as part of the Agency's new "brownfields prevention" effort, providing: support for regional transition manuals; "marketing" and impetus for development of regional and state Tier 3 programs; and national legislation and/or policy to promote direct redevelopment links for metal finishing sites.
States and POTWs	ECOS, AMSA, and WEF promote broad state and POTW review, understanding, feedback, and support for ongoing EPA efforts to develop and test Tier 3 strategies.	Develop legislation at the state level to provide incentives and protection for companies pursuing responsible site transition. Recognize the Tier 3 "brownfield prevention" concept as an appropriate site remediation enforcement option.
NGOs (Environmental Groups, Labor, Community Groups)	Provide feedback and support for ongoing EPA efforts to develop and test Tier 3 "brownfield prevention" strategies. National groups work with community networks to make local priorities (not just environmental) known.	Provide broad national recognition of federal, state, and local "brownfield prevention" programs. National and community groups work cooperatively with EPA, states, and regional industry associations to highlight local site transition opportunities and priorities.

Issue Area #9: Enforcement for Chronic Non-Compliers (Tier 4)

Enabling Actions:

In 1998, create a sector-based, targeted enforcement program for chronic violators in the compliance system, "rogue" facilities operating outside of the system, and owners of abandoned facilities, with EPA working with states, POTWs, and other partners, leading to rehabilitation or closure of Tier 4 firms.

Background:

This enabling action is drawn from the Sector's Tier 4 Facility Enforcement Project. Tier 4 firms are chronically out of compliance, do not actively seek ways to be in compliance, and generally escape enforcement attention because of their small size and transient nature, or the inability/unwillingness of government authorities to proceed against them. Tier 4 facilities may be chronic non-compliers operating within the standard regulatory system or "rogue" facilities operating underground. These firms lower the reputation of the industry and compete with higher tier firms by avoiding the costs of environmental protection and underselling their competition. The objective of the Sector's Tier 4 activities is to develop a sector-based, targeted enforcement program for government at all levels to identify Tier 4 firms and take appropriate action against them.

This issue area is directly related to National Performance Goal 5(c), both from an environmental and economic perspective. New methods of identifying potential non-complying facilities are needed to improve the effectiveness of enforcement programs. The CSI/MF Subcommittee has as a highest priority the development of such methods, with full enforcement against those identified, as part of a consistent enforcement program for the industry as a whole.

Enforcement for Chronic Non-Compliers -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Work with EPA, through CSI pilot projects, to develop methods to identify Tier 4 firms and appropriate enforcement responses for such facilities.	Work with EPA to develop an acceptable means for metal finishing firms to identify Tier 4 facilities without fear of enforcement scrutiny or industry ostracism.
EPA HQ and Regions	Initiate expanded testing of innovative tools and approaches for better targeting, working with multiple stakeholders in several EPA regions.	Starting in 1998, phase in a national sector-based, targeted enforcement and response program for metal finishers, focusing mainly on chronic violators in the compliance system, "rogue" facilities operating outside of the system, and owners of abandoned facilities, working with POTWs and other partners.
States and POTWs	States and POTWs in the pilot regions work cooperatively to test Tier 4 approaches. ECOS, AMSA, WEF, and media-specific state environmental associations promote broad state and POTW review, understanding, and support for on the Tier 4 concept.	Starting in 1998, develop state and local Tier 4 "targeted enforcement" programs, in conjunction with EPA enforcement programs.
NGOs (Environmental Groups, Labor, Community Groups)	Provide feedback and support for ongoing EPA efforts to develop and test Tier 4 "targeted enforcement" strategies. National groups work with community networks to suggest appropriate responses based on individual community needs and priorities.	National groups promote better community understanding of different levels of industry performance and government response. National and community groups work cooperatively with EPA, states, and local governments to identify potential Tier 4 facilities in local communities.

Issue Area #10: Access to Capital

Enabling Actions: **Government and industry work together with lending and insurance institutions to establish mechanisms for metal finishers to obtain capital for environmental investments (for improved facility environmental performance and/or site remediation).**

Background: ***This enabling action is drawn from the Sector's Access to Capital Project.*** The metal finishing industry is characterized by small job shops. These small business owners often find barriers to obtaining funding for facility improvement and/or site remediation. The CSI Metal Finishing Sector has lead an effort to conduct an analysis of innovative ideas such as environmental insurance and technology verification to support loan decisions that can be of benefit across CSI's small business components. EPA held a meeting of banking, insurance, and industry experts (with representatives from the CSI Printing, and Computers and Electronics Sectors) in January 1997 to discuss Access to Capital issues. Stakeholders of the Metal Finishing Sector will act upon key recommendations from that expert panel.

Access to Capital -- Stakeholder Group Commitments:

Stakeholder Groups	Near -Term (1997)	Long-Term (1998-2000)
Metal Finishing Industry	Assess the industry's demand for prospective "access to capital" remedies; identify opportunities to test innovative ideas (starting with the proposal for SBA/NAMF pooled funding).	Starting in 1998, implement tested "access to capital" programs on a broad scale, with NAMF leadership.
EPA HQ and Regions	Starting in 1997, test the following prototype mechanisms for metal finishers to obtain capital for environmental investments: [Priority approaches to be added, likely to include the proposal for SBA pooled funding via NAMF].	Link metal finishing "access to capital" programs to other CSI issue areas, such as compliance assistance, technology verification, and Tier 3 "brownfields prevention."
States and POTWs	Evaluate existing financial assistance programs at the state and local level; feed information and appropriate contact persons to CSI "access to capital" effort.	Link metal finishing "access to capital" programs to existing state financial assistance efforts; create new state programs that are accessible to metal finishers (i.e., they incorporate metal finishing "access to capital" approaches).
NGOs (Environmental Groups, Labor, Community Groups)	Provide recognition of "access to capital" issue and support to technology verification efforts.	Promote the "access to capital" program nationwide as a tool for NGOs to help metal finishers in their communities improve their environmental performance.

Conclusion

The CSI Metal Finishing Subcommittee envisions that, by the year 2002, the stakeholder groups represented in this document will have established a new cleaner, cheaper, smarter regulatory system for the metal finishing industry. The new system will enable metal finishing facilities to achieve greater environmental protection using fewer resources. Other stakeholders, particularly federal, state, and local governments, also will achieve their environmental objectives with greater effectiveness, at less cost.

It is essential that this new system be a partnership effort among all stakeholders -- EPA at the Headquarters and regional office levels, the metal finishing industry (with representatives of job shops, captive operations, suppliers, etc.), state and local governments, non-governmental organizations, and others. The new system will be developed in large part through the National Performance Goals Program, the Metal Finishing 2000 Program, and the major enabling actions that are set forth in this document. The system will have several main components:

- Facilities that pursue the National Performance Goals and achieve consistent compliance will be eligible for Metal Finishing 2000 benefits, receiving operational flexibility to achieve better performance with less burden;

- All facilities will have access to effective technology and "customer oriented" compliance assistance, including access to financing to make environmental improvements;

- All facilities will be influenced by system-wide reforms involving waste management, monitoring and reporting, and industrial pretreatment;

- Metal finishers that want to transition out of business will have access to programs with a clear, viable exit strategy;

- Metal finishers that consistently fail to comply with environmental requirements will be enforced against to the fullest extent of the law.

The Metal Finishing Subcommittee and, following it, the multi-stakeholder oversight committee for the Strategic Goals Program, will continue to refine key pieces of this system. As the Goals Program makes progress, they may consider expanded "flexible track" privileges for top-performing facilities.

Achievement of the National Performance Goals and the establishment of this new regulatory system by the year 2002 are ambitious enterprises. They will require a concerted, cooperative effort on the part of all CSI/MF Subcommittee members and their constituents. However, the gains to be made -- in terms of cleaner, cheaper, and smarter performance by the metal finishing industry -- will be well worth the effort.