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ACQUISITION AND  
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26 OCT 1995

Mr. Steven Geil  
Engineering & Analysis Division (4303)  
U.S. EPA  
401 M Street, SW  
Washington, DC 20460

MP&M PHASE I COMMENTS

DCN: 20580  
SECTION: 19.1

Dear Mr. Geil:

Enclosed please find comments from the Department of Defense (DoD) on the proposed rulemaking "Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards: Metal Products and Machinery" dated May 30, 1995. These comments represent a consolidated response from the Military Services directed towards providing more flexibility and clarification in the implementation of this proposed rule.

A major issue for DoD in the proposed regulations is that our military installations should not be treated as one industrial source of Metal Products and Machinery (MP&M) industrial flow. MP&M industrial sources on a DoD installation may be separated by both significant distances and the type of MP&M industrial activity taking place at a specific location. In this circumstance, DoD believes these sources should be considered separate sources as they would be if non-DoD MP&M sources discharged into a publicly-owned treatment works.

Because EPA has acknowledged this inequity for mixed use facilities, such as a military installation, and has solicited comments on the issue in the proposed rule, DoD has proposed some additional language to further clarify when MP&M sources are considered contiguous (see comments 13 and 20 enclosed). Breaking down the mixed use facility into smaller MP&M industrial areas would allow DoD to implement the proposed rule more equitably and cost effectively. The Department can provide additional assistance on this issue, as necessary.

Time constraints and lack of resources prevented DoD from preparing a detailed cost/benefit analysis for implementing the proposed rule, although an estimated cost was obtained. We expect, however, that costs versus environmental benefits received would be a major consideration for EPA in the final rule. The estimated cost impact to DoD, at this time, is over \$89 million for capital improvements and over \$12 million in increased annual operation and maintenance costs.

Please consider the enclosed comments in preparing the final rule for MP&M - Phase I.  
If there are any questions, or if we can provide further information, please feel free to call Mr. Ed Miller (703-604-5775) of my staff.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Walsh", with a large, stylized initial "P" that loops back.

Peter Walsh  
Assistant Deputy Under Secretary of Defense  
(Environmental Quality)

cc: DLA (CAAE)  
Enclosure

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**DoD COMMENTS ON THE 30 MAY 1995  
EPA PROPOSED RULE (60 FR 28210)**

**EFFLUENT LIMITATIONS GUIDELINES, PRETREATMENT STANDARDS,  
AND NEW SOURCE PERFORMANCE STANDARDS:  
METAL PRODUCTS AND MACHINERY**



Office of the  
Assistant Deputy Under Secretary of Defense  
(Environmental Quality)

26 October 1995

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*Note: The following comments have been formatted according to the corresponding Federal Register page number and preamble section or regulatory citation of the proposed rule.*

**GENERAL:**

**1. Point of compliance**

The effluent limitations in the proposed rule are based upon end-of-pipe treatment but compliance for indirect discharges is based upon sampling the combined effluent going to the publicly owned treatment works (POTW), using the combined waste stream formula (CWF). The combined effluent includes other categorical industry effluents and large quantities of domestic sewage.

The Department of Defense (DoD) recommends that compliance with Metal Products and Machinery point source category (MP&M) standards be demonstrated at the end of pretreatment, thereby eliminating the need to use CWF and the potential compliance problems created by metals in other wastewaters mixing with MP&M wastewater prior to the compliance point.

**2. Compliance costs associated with the MP&M Phase I rule**

Due to time constraints and insufficient resources, DoD was not able to provide a detailed cost/benefit analysis associated with this proposed rule. Therefore, DoD has developed basic cost estimates for implementation of the requirements of the MP&M Phase I rule. DoD estimates that it will incur \$89.4 million in capital costs and \$12.08 million annually in operation and maintenance (O&M) costs to implement the requirements of the rule in its proposed form. The following summary tables present the individual cost estimates of the Army, Navy, and Air Force.

**Air Force Cost Estimates\***

Type of Installation	Number of Installations	Average Cost Per Installation	Total Cost	Notes
Air Force Depots	3	\$4M	\$12M	1, 2
Government-Owned Contractor-Operated	4	\$1.5M	\$6M	
Air Force Bases with On Base FOTWs	20	\$1M	\$20M	3
Air Force Bases Discharging to POTWs	16	\$500K	\$8M	4
<b>Total</b>	<b>43</b>		<b>\$46M</b>	

\* Air Force cost estimates include only capital costs. Estimates of O&M costs were not available.

Notes:

1. Depots with industrial wastewater treatment plants (IWTP) will require plant upgrades and process changes to meet MP&M limits.
2. Assumption: Kelly and McClellan AFBs, both of which are on the BRAC 95 closure list, will not require plant upgrades.
3. Assumption: 40% of the Air Force's federally owned treatment works (FOTW) are expected to require pretreatment to meet MP&M requirements.
4. Assumption: 30% of the Air Force's installations discharging to POTWs are expected to require MP&M treatment to achieve compliance with the proposed guidelines.

## Navy Cost Estimates\*

Type of Installation	Number of Installations	Average Cost Per Installation	Total Cost	Notes
Navy Public Works Centers (PWC)	6	\$130K - \$230K	\$780K - \$1.38M	1
Naval Research and Development Activities	1	\$100K	\$100K	2
Total	7		\$800K - \$1.48M	

\* Navy cost estimates include only O&M costs. No capital costs are anticipated.

## Notes:

1. PWCs may incur increased annual operating costs for additional chemical reagent, labor, and testing and batch testing for destruction of cyanide required.
2. No research and development exemptions exist in the proposed rule. One Naval research activity currently generates process wastewater from research and development in metal working.

## Army Cost Estimates\*

Type of Installation	Number of Installations	Average Cost Per Installation		Total Cost		Notes
		Capital	O&M	Capital	O&M	
Industrial	33	\$579K	\$142K	\$19.1M	\$4.7M	1
Non-Industrial	57	\$426K	\$104K	\$24.3M	\$5.9M	2
Total	90			\$43.4M	\$10.6M	

\* Army cost estimates include both capital and O&M costs. Analytical costs have been included in O&M costs.

## Notes:

1. The majority of Phase I MP&M wastewater from industrial installations is generated from surface treating/plating rinses.
2. The majority of Phase I MP&M wastewater from troop-based installations is generated from aqueous degreasing and floor cleaning.

**PREAMBLE:**

**II.G**  
**p. 28215**

**3. Unit operations subject to the rule -- floor cleaning**

Part G of the preamble (page 28215) includes floor cleaning as a unit operation covered by the rule. DoD believes that the applicability of the rule to floor cleaning requires clarification. Additionally, DoD suggests that although some floor cleaning operations may require consideration under the MP&M regulations, the application of effluent or pretreatment standards may not be appropriate in all cases.

Floor cleaning that picks up metals and metallic wastes from grinding, blasting, and machining operations; solvents; acids; and other materials from MP&M operations should be subject to the regulation. Floor cleaning that is not expected to pick up contaminants from an MP&M operation, however, should be exempt.

Motor pools and similar operations may conduct preliminary cleaning, parts cleaning (solvent), machining, welding, and spot painting which do not generate any wastewater. Under these conditions, the only wastewater generated that might be subject to the proposed rule is from floor washing that generally takes place once per week. Many motor pools are smaller than local gas stations. If this small amount of water is considered to be subject to the proposed rule or the Phase II rule, any new motor pool or gas station would have to meet the pretreatment standards regardless of flow, which would not substantially benefit the environment nor would it reduce loadings to the receiving wastewater treatment facility.

DoD recommends that the final rule clarify what floor cleaning operations are subject to regulation. It is suggested that floor washing in maintenance areas within the industrial sectors listed for Phase I or II, that do not generate other wastewaters subject to the proposed rule, be exempt from the effluent or pretreatment standards. The floor wash water could be subject to a best management practice which could include either treatment by a standard API oil/water separator or established practices to prevent or mitigate spillage from the maintenance activities.

**II.G**  
**p. 28215**

**4. Unit operations subject to the rule -- aircraft and jet engine wash water**

When discussing unit operations that generate wastewater subject to the requirements of the proposed rule, the preamble does not specifically address wastewater generated at wash racks from the routine washing of aircraft and jet engines. Because these large volumes of wastewater are not associated with the maintenance of metal products, DoD believes such discharges should not be subject to regulation under the MP&M rule, but will more appropriately be addressed under the effluent limitations guidelines currently under development for transportation equipment cleaning.

DoD requests that clarification be provided in the final rule to specify that routine aircraft and jet engine washing are not MP&M activities, and accordingly that discharges from washing are not regulated.

**II.G**  
**p. 28215**

**5. Coverage of noncontact, nondestructive testing water**

The preamble to the proposed rule notes that wastewater from noncontact, nondestructive testing is also included under the scope of the rule. The U.S. Environmental Protection Agency (EPA) notes that a source of "testing" water is photographic waste from nondestructive x-ray examination of parts. Because of the unique nature of photographic wastewater, particularly the high silver content, it should not be pretreated to the same standard as metal products and machinery.

DoD recommends that EPA delete this requirement and continue to manage photographic processing wastewater under 40 CFR 459 (Photographic Processing) or as a hazardous waste, whichever is appropriate.

**VI**  
**p. 28222**

**6. Applicability to initial cleaning steps**

Section VI of the preamble to the proposed rule (Industry Subcategorization) discusses initial cleaning steps associated with rebuilding and maintenance. To determine the potential applicability of the proposed MP&M Phase I rule, DoD reviewed initial cleaning operations that routinely occur at installations. In doing so, DoD identified several activities for which the applicability of the regulation should be clarified in the final rule. Examples of initial cleaning activities associated with DoD operations include:

- washing an engine at a standard wash rack while it is still in the vehicle, in preparation for engine maintenance
- steam cleaning an engine that has been removed from a vehicle, just prior to maintenance
- washing a vehicle at a wash rack dedicated solely to maintenance
- washing an aircraft prior to maintenance

EPA has not included "initial cleaning" in the discussion of unit operations subject to the proposed rule on page 28215 of the preamble. EPA has, however, included "solvent degreasing." DoD therefore has inferred that, when no solvents are used in the operations listed above, those operations are not subject to this regulation. DoD requests that clarification of initial cleaning operations be provided in the final rule. Suggested language is provided below.

Initial cleaning. Initial cleaning is defined as the removal of oil, grease, grit, and soil from metal products prior to manufacturing, rebuilding, or maintenance. Discharges from operations using solvents, or water with solvent additives, to conduct initial cleaning are considered to be subject to this subpart. Discharges from initial cleaning operations using only water, or a mixture of water and biodegradable detergents are not subject to this regulation.

**IX.B.3**  
**p. 28226**

**7. Determination of flow if historical data are not available**

Production-normalized flow (PNF) for each operation is to be used to establish mass limits for regulated sources if appropriate historical operation flow data are not available. In section 16.1.3 of the Technical Development Document (TDD), EPA recommended the use of the 25th percentile or the median value presented in Table 16-1, if no historical data are available. No standard was set as to how a flow from a unit process is to be determined relative to the low flow exemption if there are no historical data.

DoD recommends that if historical wastewater flow data are not available to the owner of an MP&M facility which may be subject to pretreatment standards, Table 16-1 (p. 16-48) of the TDD should be used to determine the flow from a unit process.

**XIX.2**  
**p. 28268**

**8. Flow cut-offs**

EPA proposes a low flow exemption cut-off limit of 1,000,000 gallons per year. Table 26 (p. 28269), Estimated Distribution of Indirectly Discharging Sites by Baseline Flow and Load, indicates that, at a cut-off of 1,000,000 gallons per year, the facilities exempted make up 78% of total sites engaged in MP&M related activities but only 4% of total flow and 10% of total load. While EPA shows that most of the pollutant loading comes from small proportion of facilities discharging more than 1,000,000 gallons per year, it has not demonstrated that if the low flow cut-off were increased above 1,000,000 gallons per year, the exemption would not yield substantially the same results in regulating the facilities which generate a majority of the effluent covered by the proposed rule. Preamble Section XIX, Industry Description, Table 25, Estimated Distribution of Indirectly Discharging Sites by Baseline Flow and Load, provides data for flow and load at one other data point. At a cut-off of 6,250,000 gallons per year (or 25,000 gallons per day), the facilities exempted would make up 93% of total sites engaged in MP&M related activities but only 23% of total flow and 38% of total load. This 25,000 gallons per day limit is equivalent to the Significant Industrial User (SIU) limit that EPA has established under the general pretreatment regulations (40 CFR 403.3(t)(1)(ii)). The SIU limit is a definition currently used by EPA to identify significant industrial users and would be useful for identifying dischargers for the purpose of this rule.

DoD recommends that EPA increase the low flow cut-off to the SIU limit of 25,000 gallons per day (40 CFR 403.3(t)(1)(ii)).

**XIX.4**  
**p. 28269**

**9. Alternative to mass-based compliance -- additional in-process technologies**

EPA solicited comments on additional in-process control technologies to be added to the list provided. DoD recommendations are provided below.

Three technologies were identified in the TDD that have not been included in the proposed rule. DoD recommends that these technologies be added to the list provided:

- Use of spray or fog for rinsing
- Use of mechanized drag-out
- Recycling of metalworking fluids

DoD also recommends the addition of the following in-process technologies to the list:

- Reuse of mild acid rinse water. Using mild acid rinse water as an influent to the rinse after the alkaline cleaning bath improves the efficiency of the rinse so less rinse water is required.
- Reuse of alkaline rinse water. Reuse rinse water from an alkaline cleaner operation to rinse parts from an acid cleaning operation.
- Reuse of spent acid and alkaline. Spent acid can be used to neutralize an alkaline waste stream. Spent alkali can be used to neutralize an acid waste stream.
- Installation of bath filters. Bath filters can remove particulates and trace organic contaminants in the process bath and lengthen bath life.

**XIX.4**  
**p. 28270**

**10. Alternative to mass-based compliance**

EPA has considered an alternative to mass-based compliance that would require all indirect dischargers to comply with concentration-based permits and mandatory pollution prevention practices.

DoD recommends that this approach be adopted. Such an approach would eliminate flow monitoring and prevent dilution by requiring mandatory pollution prevention practices.

**XIX.5**  
p. 28270

**11. Cyanide monitoring waivers**

See comment 12.

**XIX.6**  
p. 28270

**12. Pollutant monitoring waivers**

In the proposed rule, EPA solicited comments on the allowance of waivers from monitoring specific metals.

DoD supports the use of waivers (i.e., reduction in frequency or elimination of monitoring requirements) if a site can certify the absence of the regulated parameter in wastewaters, as currently provided for Total Toxic Organics in 40 CFR 433. DoD recommends such waivers be allowed for all regulated metal pollutants, including cyanide, when pollutants are not used on site or when existing or historical monitoring data indicate that, although metal pollutants are present in wastewaters, pollutant levels are consistently below established limits. DoD further recommends that the TDD include guidance for permit writers on the issuance of waivers.

**XIX.11**  
p. 28270

**13. Possible deletion of regulated parameters**

See comments 39 and 42.

**XIX.18**  
p. 28271

**14. Contiguous site definition**

Section 438.11(i) of the proposed rule defines plant or portion of a plant as "an activity, facility, or mixed-use facility that is engaged in performing an MP&M-related industrial function and either located in a single building or located on a contiguous parcel of property. For purposes of this definition, mixed use facilities are those that have a mixture of non-related industrial, residential, or office types of activities. Sources or point sources located within the same fence line or property are not necessarily considered contiguous."

In section XIX.18 of the preamble to the proposed rule (p. 28271), EPA sought comments on how to define which parcels of property within the same fence line on a mixed use property are contiguous. The preamble also posed potential methods for making this determination. Options suggested by EPA included (1) dividing such properties into a system of grids with all discharges from sites within a single sector considered contiguous; and (2) leaving the determination to be made on an case-by-case basis by the permit writer based on some degree of proximity between industrial operations and a practical application of the requirements for MP&M Phase I industries, the degree to which the functions are related, and such other factors as EPA considers relevant to the determination.

EPA noted that this definition is particularly important to federal, state, and local government entities in determining the amount of wastewater generated by a plant and the applicability of the provisions for small volume indirect dischargers. Such entities typically serve a single primary mission (e.g., provision of municipal services, support to national defense), but perform highly varied functions in accomplishing that mission. The preamble stated EPA's opinion that it would be illogical to consider the entire mixed use facility to be a single plant and to calculate its discharges collectively. These functions are related only by the fact that they are performed by the same entity (i.e., the municipality or the federal agency) and that they fulfill a part of the broad mission of that entity. The vast area covered by some municipal facilities and military installations renders it likely that such activities may have more than one MP&M Phase I or Phase II activity located in widely separated parts of a single municipal or federal property. In some cases, given the distance between sources and the amount of their discharges, treating collectively the process wastewater discharges from two or more MP&M sources on mixed use facilities is economically or operationally impractical. At Marine Corps Base (MCB) Camp Pendleton, the maintenance activities of the Third Assault Amphibian Battalion are located 26 miles away from similar facilities of the 7th Marine Regiment and discharge to two different FOTWs. A requirement to group all sources and treat them collectively on a mixed use facility would not address the problem that is the principal focus of this regulation, significant discharges of MP&M industrial wastewater, and would not provide a significant reduction in the amount of water pollution. Moreover, such a requirement could have a negative effect on pollution control efforts by requiring substantial investment in infrastructure in order to comply. This large expenditure could significantly drain the already limited environmental compliance budget of mixed use facilities, which might be spent on other, more cost-effective pollutant control measures.

DoD recommends that permit writers be provided the discretion to make the determination of a contiguous parcel. DoD also recommends that the preamble to the final rule include the following language to provide clarification regarding the term "plant or portion of a plant."

In an effort to maximize the benefits of the proposed requirements for mixed use facilities, today's rule combines a variation of the two options suggested in the preamble to the proposed rule. The rule provides several examples of sources that may be regarded as being located on non-contiguous parcels of property and therefore considered separately in determining whether they fall within the exception for small volume indirect dischargers. For example MP&M sources or point sources separated by intervening non-MP&M industrial sources or non-industrial sources need not be treated as a single source if treating them collectively is economically or operationally impractical. Another factor that may affect whether two MP&M sources are considered a single source is whether they are physically separated by a

distance that makes it economically or operationally impractical to treat them as one source. For example, if a small discharge is separated from a much larger discharge, it may be uneconomical to pipe the small discharge to the other site for treatment and uneconomical to provide treatment at the site of the small discharge. Sources that discharge to different publicly-owned treatment works or federally-owned treatment works may also be considered separate, non-contiguous sources.

The rule provides the permit writer with discretion whether to treat two sources as contiguous and gives the permit writer the flexibility necessary to ensure that the pollution reduction goals of the MP&M point source category requirements are met.

In addition to the supplemental preamble language recommended above, DoD has prepared responses under comments 21 and 32 addressing related issues.

**XIX.19**  
p. 28271

**15. Flow definition**

See comment 31.

**CODE:**

**438.10 -- Applicability; description of the Metal Products and Machinery Phase I point source category.**

**438.10**  
p. 28275

**16. Applicability -- unit operations subject to the proposed rule**

See comments 3, 4, and 5.

**438.10**  
p. 28275

**17. Applicability -- unit operations subject to the proposed rule**

Although EPA identified six general types of unit operations on page 28216 of the preamble and 47 typical unit operations on page 28215 of the preamble, unit process operations subject to the Phase I regulations have not been included in the codified section of the rulemaking. Identification of processes subject to the requirements of the MP&M rule could be accomplished much more easily if that information were included in the codified section of the final rule.

DoD recommends that EPA codify lists of unit operations as an appendix to Part 438 in the final rule.

438.10(a)  
p. 28275

**18. Applicability -- definitions of the terms manufacture, maintain, and rebuild**

EPA defines the applicability of the proposed rule as covering "...Phase I industries which manufacture, maintain or rebuild finished metal parts, products or machines from any basis metal." Although EPA provides some discussion of the terms manufacture, maintain, and rebuild on page 28222 of the preamble, the terms have not been defined in the proposed code. The lack of clarity on applicability could result in confusion in identifying industrial processes that are subject to the rule.

DoD recommends that in section 438.11 of the final rule, EPA codify the definitions of the terms manufacture, maintain, and rebuild that were provided on p. 28222 of the preamble.

438.10(a)  
p. 28275

**19. Applicability -- definition of process wastewaters**

The proposed rule is applicable to process wastewater discharges, however, such discharges are not defined in the codified section of the rule. Section VII on page 28224 of the preamble includes a definition of process wastewater.

DoD recommends that in section 438.11 of the final rule, EPA codify the definition of the term process wastewater that is provided in the second paragraph under section VII.A on p. 28224 of the preamble.

**438.11 -- Specialized definitions.**

438.11(f)  
industries  
p. 28275

**20. Definition of "MP&M Phase I industries" -- applicability to Phase II**

EPA has proposed to apply the MP&M Phase I regulation to combined wastewater discharges when a site is manufacturing, rebuilding, or maintaining finished metal products in both Phase I and Phase II sectors. Page 28215 of the preamble to the proposed rule states, "This proposal should alleviate burdens on the permit writers and allow the site to achieve compliance more cost effectively, since they will have to comply with one set of limits." DoD believes the application of the Phase I rule to Phase II sectors may actually increase the strain on the resources of permit writers because of the increased numbers of processes and waste streams to be permitted after the effective date of the Phase I rule. The costs to facilities may increase as well because of the increase in the types and volumes of wastewaters to be treated and monitored. The impact on permit writers and facilities would be mitigated if the requirements were implemented over a longer period of time. Finally, EPA's cost analysis focuses on Phase I sectors and provides no discussion of Phase II sectors that will be affected by regulation under the Phase I rule.

DoD recommends that EPA revise the applicability to state that plants or portions of plants which have both Phase I and Phase II industrial activities will be regulated by the phase of their primary industrial activity. For example, the primary industrial activity at a naval shipyard is ship repair. However, most shipyards also perform some work that might be considered under the electronics or ordnance industrial sectors. Based on the primary industrial activity, a naval shipyard would be regulated under MP&M Phase II requirements.

Additionally, DoD recommends that the definition of "MP&M Phase I industries" be revised to clarify that Phase I industries eligible for the low flow exemption under section 438.16(b) would not be subject to regulation solely because Phase II industry flows have caused the combined flow to exceed the low flow cut-off.

DoD recommends that the third sentence of 438.11(f) be revised to read:

If a plant ~~generates wastewater~~ discharges through a combined outfall wastewater that is generated from operations performed in both MP&M Phase I and MP&M Phase II industries; and the MP&M Phase I industry, without considering the Phase II wastewater flow, is covered by this subpart; and the wastewater from both phases is discharged to a combined outfall, then the plant is considered MP&M Phase I and the combined outfall is covered by this subpart.

438.11(i)  
p. 28276

**21. Definition of "plant or portion of a plant"**

Consistent with comment 14, DoD recommends that the following language be added to the definition of "plant or portion of a plant:"

Two or more sources of MP&M process wastewater, within the same fence line and under common ownership or operation, are not on contiguous parcels if they are separated by non-MP&M sources, or are separated by a distance, that makes it economically or operationally impractical to treat them together. For plants or portions of plants with two or more sources or point sources, sources are not considered on contiguous parcels if they discharge to different POTWs or FOTWs.

DoD also recommends that section 438.16(b) be revised to provide additional clarification. See comment 32.

**438.12 -- Monitoring Requirements.**

438.12  
p. 28276

**22. Monitoring requirements for cyanide**

See comment 12.

**438.13 -- Effluent limitations representing the degree of effluent reduction attainable by applying the best practicable control technology currently available (BPT).**

438.13(a) 23. Mass calculation  
p.28276

Mass calculation methods are listed in sections 438.13(a), 438.14(a), 438.15(a), 438.16(a), 438.17(a), and 438.18(a) of the proposed rule. If flows are multiplied by pollutant concentrations, mass values will not be generated without using a conversion factor. This fact is not clearly stated in the proposed rule.

DoD suggests that Sections 438.13(a) through 438.18(a) could be revised to read:

Mass values are to be calculated using wastewater discharge flow subject to this subpart and concentrations listed in Table 1.

**438.14 -- Effluent limitations representing the degree of effluent reduction attainable by applying the best conventional pollutant control technology (BCT).**

438.14(a) 24. Mass calculation  
p.28276

See comment 23.

438.14(a) 25. Mass calculation of pH (438.14)(a)  
p. 28276

The current language of the proposed rule might be interpreted as stating that pH limits are mass values.

DoD suggests that section 438.14(a) could be modified to read:

...point source subject to this subpart must achieve discharges within the pH range listed in Table 1 and not exceeding....

438.14(a) 26. Duplicate regulation of oil & grease  
p. 28276

Oil & grease limitations are proposed under BCT (438.14(a)) as well as BAT (438.15(a)). Oil and grease should be considered under BCT as a conventional pollutant or under BAT as an indicator of toxic organics, but not under both. There are no obvious examples where a source would be regulated for conventional pollutants (BCT) only.

DoD recommends that oil & grease be regulated under a single section. If oil & grease is to be used as an indicator parameter, it should only be listed as a BAT parameter. If the final rule no longer considers oil & grease an indicator parameter, it should only be regulated as a BCT parameter.

**438.15 -- Effluent limitations representing the degree of effluent reduction attainable by applying the best available technology economically achievable (BAT).**

**438.15(a) 27. Mass calculation**

p.28276

See comment 23.

**438.16 -- Pretreatment standards for existing sources (PSES).**

**438.16 28. Inclusion of FOTWs in the final rule**

p. 28276

The proposed rule does not specifically address FOTWs.

DoD recommends that the applicability of the MP&M Phase I rule to FOTWs be clarified. EPA should insert the language "or a federally owned treatment works" after "publicly owned treatment works" in sections 438.16, 438.16(c) and (d), 438.18, and 438.18(b) and (c).

**438.16(a) 29. Mass calculation**

p.28276

See comment 23.

**438.16(b) 30. Low flow exemption**

p. 28276

See comment 8.

**438.16(b) 31. Low flow exemption -- daily versus annual determination**

p. 28276

Section 438.16(b) of the proposed rule establishes an exemption from PSES for any source discharging less than 1,000,000 gallons per year of MP&M process wastewater. Section III.E on page 28216 of the preamble and several other sections of the preamble further state: "For a site operating 250 days per year, 1,000,000 gallons per year translates into an average discharge flow rate of 4,000 gallons per day."

Although the language may have been included in the preamble to provide clarification, it could be interpreted to imply that the flow rate cut-off is determined on a daily basis rather than, or in addition to, being determined on an annual basis. The establishment of a daily flow cut-off could result in the exceedance of the 4,000 gallon per day level by military installations because of periodic surges in workload associated with transfers of squadrons, base realignment, and deployment of personnel. On an annual basis, however, such installations may fall well below the established level of 1,000,000 gallons per year. DoD believes such episodic generation of effluent should not be regulated by the MP&M Phase I rule. Rather,

the rule should focus on those facilities discharging wastewater in excess of the established annual flow value.

In comment 8, DoD recommended establishing a low flow cut-off at the SIU limit of 25,000 gallons per day. If this recommendation is not accepted, DoD alternatively recommends that the proposed rule be clarified to state that the flow rate used to establish the applicability of the low flow exemption be determined based on annual levels, without reference to a maximum or equivalent daily flow cut-off.

**438.16(b)**  
**p. 28276**

**32. Low flow exemption -- contiguous parcels of property**

As discussed previously in comments 14 and 21, DoD believes the MP&M Phase I rule should be clarified to address sources on non-contiguous parcels of property.

In comment 8, DoD recommended establishing a low flow cut-off at the SIU limit of 25,000 gallons per day. If this recommendation is accepted, DoD recommends that section 438.16(b) be revised to read as follows:

Any source discharging less than ~~1,000,000 gallons per calendar year~~ 25,000 gallons per day of MP&M process wastewater is exempt from this subpart. Sources on non-contiguous parcels of property shall be considered separately for purposes of applying this exemption.

If the recommendation in comment 8 is not accepted, DoD alternatively recommends that section 438.16(b) be revised to read as follows:

Any source discharging less than 1,000,000 gallons per calendar year of MP&M process wastewater is exempt from this subpart. Sources on non-contiguous parcels of property shall be considered separately for purposes of applying this exemption.

**438.16(d)**  
**p. 28276**

**33. Aluminum and iron as indicator parameters**

See comment 40.

**438.17 -- New source performance standards (NSPS).**

**438.17(a)**  
**p.28276**

**34. Mass calculation**

See comment 23.

**438.18 -- Pretreatment standards for new sources (PSNS).**

**438.18**            **35. Inclusion of FOTWs in the final rule**  
**p. 28276**

See comment 28.

**438.18**            **36. Low flow exemption for new sources**  
**p. 28276**

Although many new sources will generate minimal MP&M flows (e.g., floor washing or one power washer), the proposed rule requires discharges from such sources to meet the concentration or mass limits established in Table 1 to Part 438. There are no minimal flow exemptions for PSNS. This approach would place "de minimus" discharges under the regulation with no substantive improvement in wastewater quality at the receiving POTW or FOTW.

DoD recommends that the PSNS should include an exemption or require only best management practices (BMP) for low flow indirect dischargers.

**438.18(a)**        **37. Mass calculation**  
**p.28276**

See comment 23.

**438.18(c)**        **38. Aluminum and iron as indicator parameters**  
**p. 28277**

See comment 40.

**438.20 -- [Reserved]**

**438.20**            **39. Maximum concentration limitations for iron and aluminum**  
**(Table 1)**  
**P. 28277**

Table 1 to Part 438 includes proposed maximum concentration limitations for iron at 2.4 mg/L for one day and a monthly average not to exceed 1.3 mg/L. The rule also includes a proposed limit for aluminum at 1.4 mg/L for one day and a monthly average not to exceed 1.0 mg/L.

Aluminum and iron are included in the limitations table not because of environmental concerns, but because they are indicators of removal of non-regulated metals, for which EPA did not establish limits. EPA has not established the targeted effluent concentrations of these non-regulated metals or the correlation between these non-regulated metals and aluminum and iron concentrations.

DoD disagrees with the establishment of iron and aluminum as regulated pollutants also on the basis that substances containing iron and aluminum are frequently used by

industrial pretreatment plants in the removal of metals from process wastewaters. For example, ferrous sulfate often is used to remove chromium from wastewater. The use of iron and aluminum as indicators for metals removal will present a compliance problem for facilities that use ferrous sulfate or other ferric compounds to treat chromium or use aluminum compounds in treatment processes.

If the rule is promulgated as proposed, permittees will incur unnecessary monitoring costs and potential fines because of exceedances of iron and aluminum levels.

As such, DoD recommends that EPA remove iron and aluminum from the list of regulated MP&M pollutants.

438.20  
(Table 1)  
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#### 40. Aluminum and iron as indicator parameters

Aluminum and iron are included in the MP&M as regulated pollutants. There is no discussion that these metals are being used as indicator parameters. The oil & grease indicator has been clearly denoted and as such POTW removal credits cannot be applied to the parameter. Although aluminum and iron also are indicator parameters, removal credits can be applied to these parameters.

If aluminum and iron are retained in the final rule, paragraphs 438.16(d) and 438.18(c) should be revised to read:

...subpart shall comply with the aluminum and iron standard which serves as an indicator for non-regulated metals and the oil & grease standard.... Since aluminum, iron, and oil and grease serves as ~~an~~ indicator parameters, POTW removal credits under 40 CFR 403.7 are not available for aluminum, iron, and oil and grease.

438.20  
(Table 1)  
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#### 41. Background levels of metals in process water

Table 1 to Part 438 establishes daily and monthly maximum concentration limitations for MP&M pollutants, including limits for zinc, iron, and copper.

A maximum concentration limitation for zinc has been proposed at 0.8 mg/L for one day and at a 0.4 mg/L monthly average. The use of zinc is common in potable water treatment systems that supply source water to MP&M processes. Elevated levels of zinc may be found in process waters because of the addition of zinc orthophosphate to potable water as a corrosion inhibitor in water distribution systems. Concentrations of zinc of 0.30 mg/L are typical of potable water at one Naval base.

A maximum concentration limitation for iron has been proposed at 2.4 mg/L for one day and at a 1.3 mg/L monthly average. The occurrence of iron compounds in potable water is common, with background levels in groundwater sources as high as 5 mg/L. Compounding the problem are the characteristics of cast iron pipe which may cause the introduction of varying levels of iron into the water being conveyed.

A maximum concentration limitation for copper has been proposed at 1.3 mg/L for one day and at a 0.6 mg/L monthly average. Plumbing systems commonly contribute copper to potable water.

It also should be noted that neither zinc nor iron currently is regulated by National Primary Drinking Water Regulations; therefore neither has established enforceable maximum contaminant levels that would restrict their quantities in potable water sources used by MP&M industries. EPA has established secondary maximum contaminant levels (SMCL) for zinc and iron. These SMCLs have been established at 5 mg/L for zinc and 0.3 mg/L for iron (40 CFR 143.3). Even if a public water system adheres to these SMCLs, influent concentrations of zinc and iron in source water used by an MP&M industry may represent over 12 times the monthly maximum concentration limitation for zinc and 23 percent of the monthly maximum concentration limitation for iron.

For the reasons discussed previously under comment 39, DoD believes the limits for iron and aluminum should be deleted. As an allowance for other elevated metals in source water, DoD recommends that EPA modify the rule to provide credits equal to background levels of regulated metals. For example, as an allowance for elevated metals in source water, EPA could establish net limits for metals in MP&M discharges. An MP&M facility could qualify for a net limit if it meets an established threshold concentration in its source water. A threshold could be established at 50 percent of the maximum concentration limitation. If a source water exceeds the threshold, the permit would specify a net limitation that compensates for the background level. Such an approach would allow permittees that have a genuine problem related to background levels of metals to meet maximum concentration limitations, while screening out permittees whose source water is not a significant contributor of metals.

438.20  
(Table 1)  
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#### 42. Maximum concentration limitations

Table 1 to Part 438 includes proposed maximum concentration limitations for MP&M pollutants. EPA is proposing that the MP&M Phase I effluent guidelines regulation replace the metal finishing regulation for sites with operations in an MP&M Phase I industrial sector. The Phase I rule would establish much more stringent discharge limits than currently exist under the existing metal finishing category. A comparison of the limits follows.

Pollutant or pollutant property	Proposed 40 CFR 438		Existing 40 CFR 433	
	Maximum for any one day	Monthly average shall not exceed	Maximum for any one day	Monthly average shall not exceed
	(milligrams per liter)		(milligrams per liter)	
Aluminum	1.4	1.0	Not limited	Not limited
Cadmium	0.7	0.3	0.69	0.26
Chromium	0.3	0.2	2.77	1.71
Copper	1.3	0.6	3.38	2.07
Lead	Not limited	Not limited	0.69	0.43
Iron	2.4	1.3	Not limited	Not limited
Nickel	1.1	0.5	3.98	2.38
Silver	Not limited	Not limited	0.43	0.24
Zinc	0.8	0.4	2.61	1.48
Cyanide	0.03	0.02	1.20	0.65
TTO (1)	Not limited	Not limited	2.13	Not limited
Oil & Grease	35	17	52	26
TSS (2)	73	36	60	31
pH	(3)	(3)	(3)	(3)

NOTES:

1. TTO = Total Toxic Organics
2. TSS = Total Suspended Solids
3. Within 6.0 to 9.0 pH units

Although EPA states that these requirements would not have undue economic impacts, DoD believes that such requirements would necessitate costly upgrades of existing treatment facilities.

DoD recommends that EPA retain the existing metal finishing effluent limitations guidelines for the MP&M category. Use of these limitations for MP&M would be as protective of the environment and POTW operation as existing requirements under 40 CFR 433, while ensuring coverage of the broader industrial community identified by the MP&M category.