

November 11, 2009

To: Rulemaking Work Group
From: Mixed Media Subcommittee (Nina Bell, Charlie Logue, Peter Ruffier)
Re: Controlling Toxics from Indirect Dischargers

The Mixed Media Subcommittee has considered the potential for indirect industrial and/or commercial dischargers to contribute toxic contaminants which may not be fully removed by the receiving municipal wastewater treatment facility. This memo sets out information on the federal pretreatment program which regulates indirect dischargers, the criteria under which POTWs must participate in it, and the requirements of that participation. It also identifies the gaps associated with limitations in the federal pretreatment program for the control or reduction of toxic pollutants, how it is implemented by local jurisdictions, and when it does not apply. For each identified gap, suggestions have been made on how DEQ could, through rules or encouragement, help municipalities reduce toxics loading from industrial and commercial indirect dischargers.

This memo does not identify the administrative burdens and other costs associated with potential solutions. It is intended to start that conversation.

I. Background

Publicly owned treatment works (POTWs) collect and treat wastewater from homes, commercial buildings, and industrial sources.¹ The POTW removes the majority of harmful organisms and other contaminants from the sewage before it is discharged. POTWs are designed to treat domestic sewage but are not generally designed to remove specific toxic contaminants.² Even so, POTWs also receive wastewater from industrial facilities that discharge into the collection system (along with commercial wastes, household toxics, and urban runoff in cases of combined sewer systems). The quantities and characteristics of non-domestic wastewater discharged to the collection system are considered when designing treatment facilities. Industrial facilities that discharge to POTW collection systems do not have NPDES permits as they would if they were direct dischargers to waters of the state. Instead, these indirect dischargers may or may not fall under the federal pretreatment program.

¹ Some industrial wastes are “hauled” waste, such as septage and wastes produced from hazardous waste clean-up.

² Generally, POTWs are designed to treat domestic sewage only. Primary treatment is designed to remove large solids and smaller inorganic grit through methods such as screening and settling. Secondary treatment removes organic contaminants using microorganisms to consume biodegradable organics through such approaches as activated sludge, trickling filters, and rotating biological contactors. POTWs may also use tertiary treatment such as nitrification (to convert ammonia and nitrite to the less toxic nitrate), denitrification (to convert nitrate to molecular nitrogen), physical-chemical treatment (to remove dissolved metals and organics). Disinfection is used to kill any remaining human pathogens. The sewage sludge that is produced may be used as fertilizer, regulated under the biosolids program, or disposed of as waste.

The U.S. EPA has established regulations that determine the respective responsibilities of government agencies, POTW authorities, and indirect discharging industries to implement federal pretreatment standards to control pollutants which may: (1) pass through or (2) interfere³ with POTW treatment processes, including interfering with the beneficial use of sewage sludge.⁴ “Pass through” means “a discharge which exits the POTW into waters of the U.S. in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any NPDES permit requirement.”

The State of Oregon is revising the fish consumption rate used in calculating the human health risk component of water quality criteria. The new rate of consumption is significantly greater than the previous rate, which in turn will result in significant decreases in the water quality criteria and corresponding decreases in the allowable discharge concentrations of toxics in wastewater discharges regulated under NPDES permits. As a result, POTWs will be under increasing pressure to limit levels of toxic contaminants in their wastewater discharges. Yet treatment facilities may not be able to achieve the levels of removal required to meet these new water quality criteria concentrations. For this reason, it is more cost effective and practical for POTW authorities to use source control and toxics reduction approaches to reduce toxics in municipal wastewater. For many POTWs, the federal pretreatment program is the foundation upon which site-specific pollutant source control and reduction efforts are built. Other POTWs do not have a federal pretreatment program or limit its use in controlling toxic inputs to collection systems.

II. Oregon SB 737 and DEQ’s Toxics Reduction Strategy

In addition, in Oregon, SB 737 requires the Department of Environmental Quality to develop a prioritized list of persistent, bioaccumulative, and toxic substances (PBTs) that impact Oregon’s waters. The final list of toxic pollutants – called Priority Persistent Pollutants or “P³” – was issued on October 20, 2009. This statute also requires the 52 largest municipal wastewater treatment agencies in Oregon to assess their treated discharges for the presence of these PBTs and, if they are present, to develop plans to reduce the levels of these toxics through pollution prevention and source control programs. In this way, SB 737 dovetails with the demands put upon POTWs by the revised human health criteria and Oregon’s objective of meeting those criteria in state waters.

There are 118 pollutants on the P³ list, divided into two tiers:

Tier 1: 69 Persistent Pollutants (examples: PAHs, halogenated flame retardants, pesticides, herbicides, pharmaceuticals and personal care products, perfluorinated surfactants, metals, and some industrial plasticizers).

Tier 2: 49 Legacy Persistent Pollutants e.g., PCBs, PCNs, dioxins, DDT, etc.).

³ Interference can include chemicals that turn into dangerous gases, inhibit the biological treatment, etc.

⁴ 40 C.F.R. § 403.2.

Now DEQ is developing draft rules to specify the “trigger levels” for the P³ pollutants; a pollutant detected in the wastewater treatment facility discharge at concentrations greater than the trigger level would require the POTW to develop a toxics reduction plan.

In addition, DEQ is developing a Toxics Reduction Strategy that has generated two of its own lists: a Base List and a Focus List. Both are currently in draft form. The draft Focus List of toxics developed under this toxics reduction strategy does not contain all of the PBTs identified on the 737 P3 list.

The majority of the wastewater treatment agencies with a treatment capacity of greater than 1 million gallons per day, to which SB 737 applies, are collaboratively working to develop a statistically representative sampling scheme for an initial reconnaissance-level screening of the presence/absence of the P³ pollutants. Once this initial screening is performed, the wastewater treatment agencies will develop toxics reduction plans for the more common pollutants detected. In the summer of 2010, the municipal agencies will perform a formal sampling of the effluents and then will develop utility-specific toxics reduction plans for submittal to DEQ, as required under SB 737.

In developing their toxics reduction plans, the municipal wastewater treatment agencies will evaluate a host of options for reducing or eliminating the P³ pollutants in their respective effluent discharges. These include the development of: (1) local pretreatment program limits for the discharge of wastewater into the municipal collection system; (2) enhanced public education and outreach on consumer product selection and usage; and (3) local ordinances and product bans, etc.

III. Indirect Point Source Dischargers Contribute Significant Toxics

In 1986, more than one-third of all toxic pollutants entering the nation’s waters from publicly owned treatment works (POTWs) came from industrial discharges to public sewers.⁵ The federal pretreatment program addresses some of those pollutants. For example, in 1991, EPA estimated that 190 to 204 million pounds of metals and 30 to 108 million pounds of organics were removed each year as a result of pretreatment program requirements.⁶ That same year, EPA estimated that approximately half of the mass of the most common toxics in POTW wastestreams were released to surface waters, the rest contaminating sludge and a small fraction volatilizing.⁷

IV. The Federal Pretreatment Program

A. POTWs Required to be Included in Program

⁵ Introduction to the National Pretreatment Program, EPA-833-B-98-002, February 1999, at iii.

⁶ *Id.* at 3.

⁷ Report to Congress: National Pretreatment Program, EPA 21W4004, July 1991 at 6-6.

EPA requires all large POTWs (designed to treat over 5 million gallons/day) and smaller POTWs with “significant industrial discharges” to establish local pretreatment programs. These local programs must enforce all national pretreatment standards and requirements in addition to any more stringent local requirements necessary to protect site-specific conditions of the receiving water from the POTW discharge.

The local pretreatment program is a condition of a POTW’s NPDES permit, which is approved by Oregon DEQ. A POTW pretreatment program must contain six minimum elements, as follows: ⁸

1. Legal authority for the POTW to apply and enforce pretreatment regulations;
2. Procedures to ensure compliance with pretreatment requirements, including how the POTW will:
 - a. locate all dischargers subject to the pretreatment program;
 - b. identify the character and volume of pollutants discharged;
 - c. sample and analyze discharges and evaluate the need for slug (one-time discharges) control plans; and
 - d. investigate noncompliance.
3. Funding to carry out the program;
4. Local limits developed or a demonstration why they are not necessary;
5. Enforcement response plan; and
6. A list of significant industrial users (SIUs).

B. Indirect Dischargers Required to be Included in Program

The federal pretreatment program can apply to all indirect dischargers but focuses primarily on “significant industrial users” (SIU) which are defined as sources that:

- discharge an average of more than 25,000 gallons/day of process wastewater to the POTW;
- contribute a process wastestream equal to or more than 5 percent of the average dry weather hydraulic or organic capacity of the POTW treatment plant;
- have been designated by the local government because of their reasonable potential to adversely affect the POTW's operation or violate any pretreatment standard or requirement; or
- are subject to federal categorical pretreatment standards.

A “categorical industrial user” (CIU) is an industrial discharger subject to the federal categorical pretreatment standards. The “categorical pretreatment standards” are federal limitations on discharges to POTWs that apply to specific process wastewater discharges of particular industrial categories.

⁸ Edited for brevity and relevance to the subject of this memo.

C. Required Controls

There are three types of restrictions the federal pretreatment program places on indirect dischargers which are covered by the program: (1) prohibited discharge standards; (2) categorical standards, and (3) local limits.

1. *Specific Prohibitions*

In addition to the general prohibition on the discharge of pollutants to POTWs that cause pass through or interference, federal regulations also prohibit eight specific categories of discharges that pertain to safety, protection of property, obstruction of POTW flows, interference with the treatment processes, and discharges released at a flow rate and/or concentration which will cause interference with the POTW.

2. *Categorical Standards*

“Categorical standards” are national, uniform, technology-based standards that apply to indirect discharges for both existing and new sources. The goal of these categorical standards is to prevent the discharge of pollutants that could pass through, interfere with, or otherwise be incompatible with POTW operations. They take the place of national effluent limitations guidelines (ELGs) that apply to direct dischargers subject to NPDES permits. EPA has issued specific categorical standards for some industrial categories where as it relies on general prohibitions and local limits for other categories. The categorical standards are intended to account for any pollutant removal that the POTW may accomplish. Dischargers are required to comply with categorical standards by a date certain, usually not more than three years after promulgation, while new source standards usually apply not longer than 90 days after a discharge commences. Categorical standards can be concentration- or mass-based.

As with ELGs, categorical standards only restrict certain pollutants in a given wastestream. Therefore, a source covered by categorical standards may have pollutants that are unregulated because they are not the subject of restrictions or because they are: sanitary wastestreams, demineralized backwash streams, boiler blowdown, noncontact cooling water, storm water, and any process wastestreams based on the findings they contain none of the regulated pollutant or only trace amounts. Sources can also obtain removal credits if they can show the POTW treats the pollutant(s) or obtain a “fundamentally different factor” variance if the source can demonstrate that the factors considered by EPA in developing the applicable category/ subcategory are fundamentally different than those factors relating to a specific industrial discharger. These factors could include wastewater volume, energy requirements, non-water environmental impacts, cost, site configurations, etc. Dischargers may also obtain intake credits if its treatment will not remove all of the regulated pollutant.

Some categorical regulations currently limit the discharge of total toxic organics (TTO) including the following industries: electroplating, metal finishing, metal molding and casting, coil coating, aluminum forming, copper forming, electrical and electronic components. The TTO are limited to the sum of the masses or concentrations of certain toxic organic pollutants in the regulated

discharge at a concentration greater than 0.01 milligrams per liter (mg/l). However, the toxic organic pollutants regulated by this limit are specific to each industrial category. Some industrial categories offer flexibility with regard to monitoring and/or reporting requirements related to the TTO limit.

3. *Local Limits*

The last is “local limits” which are specific discharge limits developed by POTWs in order to implement the federal regulations’ general and specific discharge prohibitions (pass through and interference) and to address the specific needs of a POTW and its receiving waters. EPA notes that local limits “should correct existing problems, prevent potential problems, protect the receiving waters, [and] improve sludge use options.” Federal regulations⁹ require local authorities to evaluate whether local limits are needed and to implement them if necessary. Local limits can be developed for pollutants including, but not limited to, metals, cyanide, BOD5, TSS, oil and grease, organics, nutrients, flow, etc. that may cause interference, pass through, result in sludge contamination, and/or worker health and safety problems if discharged in excess of the receiving POTW treatment plant’s capabilities and/or receiving water quality standards. Typically these local limits apply to all the indirect industrial dischargers to a POTW, not just the dischargers covered under categorical standards. They are usually imposed at the point of connection to the POTW collection system. In deciding whether to establish local limits, EPA recommends that the local authority:

- identify all indirect dischargers that might be subject to the pretreatment program;
- identify the character and volume of pollutants they contribute;
- determine which pollutants have a reasonable potential to pass through, interfere, or cause sludge contamination;
- determine the maximum allowable POTW treatment plant headworks (influent) loading¹⁰ for at least the “pollutants of concern” (see below);
- identify additional pollutants of concern;
- determine contributions from unpermitted sources to determine the maximum allowable treatment plant headworks loading¹¹ from “controllable” industrial sources;
- implement a system to ensure these loadings will not be exceeded.

⁹ 40 CFR §§ 403.8(f)(4) and 122.21(j)(4).

¹⁰ The Maximum Allowable Headworks Loading Method (MAHL) uses pollutant-by-pollutant POTW to calculate removal efficiencies, before applying the most stringent criteria (i.e., water quality, sludge quality, NPDES permit, or pollutant inhibition levels) to back-calculate the MAHLs. Subtracting out contributions from domestic sources, the available industrial loading is then either evenly distributed among the indirect dischargers or allocated on an as-needed basis to those sources discharging the pollutant above background levels.

¹¹ The Maximum Allowable Industrial Load (MAIL) is the total daily mass that a POTW can accept from all permitted indirect sources and ensure the POTW is protecting against pass through and interference.

In addition, local authorities can also use local limits to (1) restrict pollutants that may cause fire and explosive hazards; (2) require dischargers to develop management practices (e.g., chemical management practices, best management practices, and spill prevention plans) for the handling of chemicals and wastes (issued as an Industrial User Management Practice Plan); (3) set numeric case-by-case discharge limits based on best professional judgment (BPJ) and available pollution prevention and treatment technologies which are known to be economically feasible; and (4) impose “local specific prohibitions” to address hydraulic, pollutant specific, and/or aesthetic concerns. EPA includes as examples of the latter: pollutants that create a public nuisance, storm water, roof runoff, and swimming pool drainage.

Local authorities are encouraged to identify pollutants of concern by looking at the environmental requirements the POTW must meet; identifying the pollutants in the POTW influent, effluent, and sludge; identifying pollutants for which a TMDL has been or will be developed; and characterizing all industrial discharges to assess which discharges, and which pollutants in those discharges, pose potential problems. EPA has identified 10 pollutants of concern – arsenic, lead, cadmium, mercury, chromium, nickel, copper, silver, cyanide, and zinc – to which it has added an additional five: molybdenum, selenium, 5-day Biochemical Oxygen Demand (BOD), total suspended solids (TSS), and ammonia (for plants that accepting non-domestic sources of ammonia). POTWs can use local limits to control any pollutant, not just CWA priority pollutants.

POTWs control contributions from non-significant dischargers using various means, such as through general permits issued to an entire industrial sector within the POTW collection area. These types of control mechanisms may not necessarily require compliance with specific pollutant limitations. For example they may include:

- grease trap maintenance and record keeping requirements for food establishments;
- maintenance of photo processors' silver reclamation units;
- practices for automotive facilities;
- non-commercial car wash practices; and
- practices for mercury recovery by hospitals and dentists.

Industrial sector general permitting programs are common where a real or potential POTW problem is linked to a particular pollutant discharged (e.g., grease is causing collection system blockages). POTWs have the authority to enforce their sewer use ordinances or regulations against non-significant dischargers without the need for any type of individual control mechanism.

D. Pollution Prevention Through Pretreatment Programs

EPA encourages use of pretreatment programs for pollution prevention through such efforts as:

- using inspections to disseminate information on pollution prevention measures;
- asking questions about pollution prevention measures and plans in the permit application process, where local laws allow;

- requiring a pollution prevention assessment and /or pollution prevention plan as a condition of the permit; and
- establishing local limits where POTWs are near or above maximum allowable headworks loadings in order to reduce specific pollutants.

V. Oregon's Pretreatment Rules

Oregon's Industrial Waste Pretreatment regulations are as follows:

(1) All owners of sewerage systems which receive industrial waste subject to federal or state pretreatment standards will develop and implement a pretreatment program for controlling those industrial contributors. The program will be submitted to the Director for approval. Department approval is considered a Category III action as described in OAR 340-045-0027.

(2) The Director will review requests for revisions of categorical pretreatment standards to reflect removals achieved by the sewerage system. No removal credit is allowed unless approved by the Director.

(3) Both the owners of sewerage systems receiving industrial wastes and the industrial contributors will comply with applicable pretreatment provisions of the federal Clean Water Act and the rules of the Department.

(4) Where a question exists as to whether or not an industrial contributor falls within a particular industrial subcategory, the Director will make a written finding and shall submit it to the EPA Regional Enforcement Division Director for a final determination, unless the Enforcement Division Director waives the receipt of the Director's determination as provided in the federal regulations. In that case the Director's determination shall be final.

(5) The owner of a sewerage system receiving industrial waste is responsible for assuring that the industrial contributor meets the prohibited discharge or categorical pretreatment standards established by the United State Environmental Protection Agency or the Department, whichever is most limiting. The owner of the sewerage system may impose more stringent pretreatment standards if deemed necessary by the owner for the proper operation and maintenance of the sewerage system or disposability of the sewage sludge.

(6) The Director will review requests for Fundamentally Different Factors variances and will either deny them or concur with them and submit the concurrence to the United State Environmental Protection Agency for approval, as provided in federal regulations. ²₁

Oregon DEQ's Reasonable Potential Analysis Internal Management Directive (RPA IMD) sheds some light on the role of the pretreatment program in setting water quality based effluent limits for POTWs.¹³ It allows POTWs with an average dry weather design flow of less than one million gallons per day to avoid analyzing their effluent for toxic pollutants thereby avoiding both effluent limits and permit monitoring requirements so long as they do not have any "significant industrial user that discharges into the treatment plant that may be a potential source of pollutants."¹⁴ On the other end of the spectrum, a POTW which is deemed under the IMD to be adding a significant load of toxics to the receiving water is labeled "Outcome B" and is subject to "Pretreatment designation and/or calculating pretreatment local limits for significant industries using health criteria."⁵¹

Appendix D of the RPA IMD elaborates on the impacts of new water quality standards on the pretreatment program.¹⁶ It states that DEQ has provided a Local Limits Workbook to establish Maximum Allowable Headworks Loading (MAHL) criteria for toxic pollutants that is then translated into allocations to the SIUs discharging to the POTW. It also notes that currently this Workbook only addresses metals and that it will require updating for the new (2004) criteria. Finally, it states that the POTW permit applicant must reevaluate its local limits not later than 18 months after the effective date of their new or reissued NPDES permit.

VI. What Are the Potential Gaps in the Federal Pretreatment Program?

In Oregon, 24 of the 52 largest municipal wastewater treatment agencies have pretreatment programs already in place that will facilitate pollution prevention and source control efforts for toxics.¹⁷ For those POTWs that have mandated pretreatment programs, enhancements of these programs may be necessary to control the types and quantities of toxic pollutants sufficient to meet the new Oregon toxic criteria as well as the requirements of SB 737. For these programs, the POTWS have the authority, under state oversight, to modify their programs to include revised local limits, use of Best Management Practices for pollutant reduction by specified dischargers to the public sewer system, or other source control and reduction mechanisms. However, there are gaps between current regulatory requirements for mandated pretreatment programs and the toxics control objectives of the State, and also gaps in the pollutant control and reduction authorities for those POTWs that are not required to have formal pretreatment programs. Here are some of these potential gaps:

- (1) No restrictions on industrial dischargers to small POTWs that have no significant industrial dischargers (discharge quantity) or categorical dischargers (industry type);
- (2) Industrial discharges with process water under 25,000 gallons/day and are therefore not "significant" and which are not categorical sources but which discharge toxics.
- (3) Under-regulated industrial discharges into a POTW with pretreatment which the

¹³ Oregon DEQ, Reasonable Potential Analysis Internal Management Directive, September 2005, <http://www.deq.state.or.us/wq/pubs/imds/rpatoxics.pdf>.

¹⁴ *Id.* at 59.

¹⁵ *Id.* at 29, Figure 3.

¹⁶ *Id.* at 76.

¹⁷ *Id.* Information as of September 2005.

- POTW has not designated as significant.
- (4) Categorical dischargers where EPA relies upon general prohibitions and/or local limits;
 - (5) Unregulated pollutants discharged by categorical dischargers;
 - (6) Unregulated categorical dischargers' demineralized backwash streams, boiler blowdown, noncontact cooling water, storm water, and process wastestreams based on the findings they contain none or only trace amounts of the regulated pollutant;
 - (7) Categorical dischargers without total toxic organics (TTO) limits (i.e., not: electroplating, metal finishing, metal molding and casting, coil coating, aluminum forming, copper forming, electrical and electronic components.)
 - (8) Inadequate total toxic organics limits that are less than 0.01 milligrams/liter categorical limits for electroplating, metal finishing, metal molding and casting, coil coating, aluminum forming, copper forming, electrical and electronic components;
 - (9) POTWs' not identifying and regulating pollutants of concern (e.g., due to failure to anticipate 303(d) listings/TMDLs, failure to evaluate all industrial discharges; assessment compared to old toxic criteria instead of new criteria);
 - (10) Local limits that are only applied to categorical or significant dischargers;
 - (11) Inadequate or insufficient general permits issued by POTW authorities to non-significant dischargers (e.g., restaurant grease, dental mercury, photo silver) with or without discharge limits;
 - (12) Categorical limits that do not sufficiently restrict discharges to meet toxic criteria and which are not augmented by adequate local limits;
 - (13) No limits on indirect dischargers because POTW's NPDES permit is based on quantitation limits, not actual toxic criteria;
 - (14) Local limits established by a POTW do not apply to a separate jurisdiction supplying wastes to the POTWs;
 - (15) Lack of limits on commercial facilities – such as radiator shops, car washes, hospitals, laundries, and photo processors – which are often not considered significant sources of toxics because of their low flows, however, they may discharge at surprisingly high pollutant loading levels; and
 - (16) POTWs may be evaluating only the 15 pollutants of concern.

VII. Approaches to Filling Identified Gaps

The objective of addressing the identified gaps should be to adopt rules or other approaches to ensure that municipal wastewater agencies adopt the necessary authority and programmatic elements in local codes, ordinances, and/or policies needed to effectively regulate or manage the introduction of toxic substances to the public sanitary sewer system which result in impacts to the receiving waters to which the POTW discharges.

Here are potential ways of addressing the gaps that allow indirect dischargers to contribute toxic chemicals to Oregon waters:

A. POTWs With No Federal Pretreatment Program In Place

- 1) DEQ could develop new Significant Industrial User (SIU) categories which will increase the number of POTWs included in the federal pretreatment program;
- 2) Encourage municipalities to implement pretreatment programs with local limits for toxic pollutants even where no categorical discharges are present and no federal pretreatment program is required;
- 3) DEQ could use the Oregon WPCF permit program to regulate discharges in municipalities that are not required to have a federal pretreatment program;
- 4) Encourage or require non-pretreatment municipalities to adopt source control and pollution reduction methods through local ordinances and best management practices, including to address commercial facilities with low flow but high individual or cumulative toxic loading;
- 5) DEQ could encourage or require POTWs subject to SB 737 but not the federal pretreatment program to adopt a pretreatment program;
- 6) DEQ could prepare BMP manuals to control sources where controls should focus on prevention rather than treatment prior to discharge to sewage systems;
- 7) DEQ could prepare model product bans and model local ordinances for the control of household and commercial sources of toxics;
- 8) DEQ could prepare model local ordinances and education programs to control disposal of pharmaceuticals from sources that are not required to register under the federal Controlled Substances Act. Registrants include: pharmacies, hospitals, clinics, practitioners, teaching institutions, mid-level practitioners, manufacturers, distributors, reverse distributors, researchers, importers, exporters, and narcotic treatment programs. Nonregistrants may include: coroners' offices, elementary and secondary schools, long-term care facilities, and veterinarians.
- 9) DEQ could require jurisdictions that supply wastes to POTWs that operate in municipalities with local limits to themselves establish local limits, through WPCF permits or another approach.

B. POTWs with Federal Pretreatment Program In Place

- 1) Encourage or require more local limits or stricter local limits (that apply to all indirect dischargers, not just categorical and significant dischargers) under existing pretreatment programs;
- 2) Encourage or require existing pretreatment programs to expand the number of sources they regulate under local limits;
- 3) DEQ could develop new Significant Industrial User (SIU) categories which would increase the number of sources regulated under existing pretreatment programs;
- 4) POTWs could designate industrial discharges as significant;
- 5) DEQ could ensure, through POTW NPDES permits, that local limits are sufficiently stringent for categorical dischargers where EPA relies upon local limits;
- 6) DEQ could ensure that unregulated pollutants discharged by categorical dischargers are subject to local limits;

- 7) POTWs could evaluate currently unregulated categorical dischargers' demineralized backwash streams, boiler blowdown, noncontact cooling water, storm water, and process wastestreams to ensure that they do not contain treatable levels of regulated pollutants;
 - 8) DEQ could evaluate need to regulate categorical dischargers that do not have EPA-issued total toxic organics (TTO) limits and evaluate existing TTO limits for: electroplating, metal finishing, metal molding and casting, coil coating, aluminum forming, copper forming, electrical and electronic components;
 - 9) DEQ could help POTWs to identifying pollutants of concern by anticipating 303(d) listings based on new human health criteria, and require comprehensive evaluation of industrial discharges;
 - 10) DEQ could require POTWs to apply local limits to all dischargers;
 - 11) DEQ could require POTWs to issue more and more stringent general to non-significant dischargers (e.g., restaurant grease, dental mercury, photo silver);
 - 12) DEQ could require POTWs to develop local limits as necessary to meet new human health criteria and SB 737 (not limited to priority pollutants);
 - 13) DEQ could require local limits on indirect dischargers for pollutants where the POTW effluent limitations are based on quantitation limits, not the actual criteria;
 - 14) DEQ could maintain database on local limits and effective practices to share with POTWs;
 - 15) DEQ could require or encourage local limits established by a POTW to apply to a jurisdiction supplying wastes to the POTW;
 - 16) DEQ could require POTWs to establish local limits on commercial facilities which are or may be significant sources of toxics but which are not regulated as pretreaters because of their low flows; and
 - 17) DEQ could ensure that POTW evaluate more than the EPA-identified 15 pollutants of concern.
- C. **Draft Approaches**

Of the 23 identified approaches listed above, we have set out more details for four of them below for purposes of illustration.

Encourage voluntary enrollment in federal pretreatment program.

No. A.2

Municipalities not already mandated to have pretreatment programs may voluntarily “enroll” in the pretreatment program under the NPDES permit regulations. This program requires development of local codes or ordinances for regulation of dischargers of covered pollutants, an enforcement response guide, and a procedures manual for the program. This voluntary action may, in fact, be motivated by SB 737 rules for a POTW which exceeds a trigger level for a listed toxic contaminant. The elements of a pretreatment program can be adapted to specifically address any of the SB 737 P3 listed toxics, either through the development of specific, technically-based local limits, or

through the application of Best Management Practices for pollution prevention and source control. All necessary state regulations are already in place to support this option.

No. A.4 *Encourage adoption of local codes and ordinances outside federal pretreatment program.*

Municipalities which are not already mandated to have pretreatment programs may voluntarily adopt local codes and ordinances that explicitly give them the authority to regulate or manage any of the P3 toxics (or, more generically, any pollutant or wastewater component of concern to the local system). Programmatic elements would then be tailored to address the specific toxic and its source. This approach would be attractive to municipalities that also want to enhance their control of Fats, Oil, and Grease (which commonly cause sewer system blockages), and could build upon already known and proven approaches with the application of Best Management Practices (such as for the control of mercury from dental clinics). Some addition to, or modification of, State regulations may be useful in facilitating the use of this option.

No. B.12 *Adopt local limits for any pollutant with reasonable potential to exceed criteria.*

EPA recommends that any pollutant that has a “reasonable potential” to be discharged in amounts that could exceed water quality standards or criteria should be considered a pollutant of concern and evaluated accordingly. The agency notes that “A POTW does not have to develop a local limit for every pollutant for which there is a water quality standard or criterion. However, EPA recommends that where a POTW permit includes a narrative water quality-based condition (e.g., “no discharge of toxics in toxic amounts”), the POTW may wish to evaluate the discharge of a particular toxic pollutant by considering its effect on water quality for that pollutant relative to EPA or State criteria for the pollutant.”

EPA goes on to say that a

[d]ischarge of a pollutant that results in a violation of a water quality standard is actionable even if the discharger’s NPDES permit does not include a specific permit condition limiting the discharge of that particular pollutant. The Ninth Circuit has held that a general permit condition prohibiting the discharge of wastewater that violates water quality standards, including a State water quality standard expressed as a broad narrative criterion, subjects a POTW to citizen suit under Section 505 of the Clean Water Act. See *Northwest Environmental Advocates, et al. v. City of Portland*, 56 F.3d 979 (9th Cir. 1995). In appropriate conditions, therefore, Section 403.5(c) would require a POTW to develop local limits to ensure compliance with the POTW’s permit condition requiring it to comply with State water quality standards. Such conditions consist of those where the record demonstrates that a discharge from a POTW is

causing or would cause violation of State water quality standards, including qualitative or broad narrative criteria, and the permit includes a permit condition prohibiting a discharge that violates State water quality standards.⁸¹

DEQ might create a set of criteria it could use to identify POTWs that warrant a complete reasonable potential analysis.

No. A.3 *DEQ could restrict discharges through WPCF permits where municipalities cannot bear cost of pretreatment program.*

DEQ has the authority to issue Water Pollution Control Facilities (WPCF) permits under state law to point sources that do not qualify for NPDES permits. In municipalities where it is desirable to restrict pollution (through discharge limits or pollution prevention practices) from indirect dischargers which do not fall within the mandatory federal pretreatment program, DEQ could issue general permits that establish such requirements.

D. Recommendations

1. Recommendations of the ACWA Industrial Pretreatment Committee

The ACWA Industrial Pretreatment Committee believes that the National Pretreatment Program should be considered as one of a number of tools that can be used to control toxics identified in SB 737 and the revised human health criteria for toxics. Using the National Pretreatment Program as a model would allow municipalities to modify and adopt elements of the Program to help control these toxics without DEQ's having to develop rules mandating stricter definitions and control measures. These program elements can be implemented quickly in a focused manner, as opposed to later during a process of rule development and promulgation.

The ACWA Industrial Pretreatment Committee recommends the following, either singly or in combination:

A POTW without an existing program to address the revised human health criteria and SB 737 pollutants should be encouraged to evaluate the elements of the industrial pretreatment program to determine if one or more of these elements can be effectively developed and implemented within its agency to reduce the discharge of toxic materials from its non-domestic dischargers.

POTWs should be encouraged to evaluate local program options and tools besides the development and implementation of a National Industrial Pretreatment Program to address and control SB 737 toxics and the implementation of the revised human health water quality criteria. This may include: the ability to condition or deny non-domestic discharges,

¹⁸ EPA, Local Limits Development Guidance, EPA 833-R-04-002A, July 2004, http://www.epa.gov/npdes/pubs/final_local_limits_guidance.pdf.

establish local permits, BMPs, pollution prevention, source reduction, and technical outreach activities.

Oregon agencies should work with local municipal programs to address toxics in common consumer products by working directly with consumer product manufacturers to change product constituents to less toxic formulations.

DEQ should evaluate, holistically, each POTW for: inclusion of local pretreatment program elements, expanded federally-mandated programs, pollution prevention and reduction plans, and/or additional treatment facilities.

DEQ should provide complete toxics reduction program oversight and management for small POTWs.

2. Recommendations of Environmental Organizations

Northwest Environmental Advocates, Columbia RiverKeeper, and the Northwest Environmental Defense Center recommend the following:

Improve monitoring of indirect dischargers' contributions of toxics.

Currently POTWs need only evaluate EPA's 15 pollutants of concern. In addition, the RPA IMD limits the evaluation of toxics in the effluent of small POTWs by their size (under 1 MGD) and whether they have any significant discharger, a term established by the federal pretreatment program and not necessarily applicable where efforts are being made to meet more stringent toxic criteria. DEQ should work with the municipalities and public to identify where SB 737 fills these gaps and where it does not, and to create an approach to evaluate the likely contributions of currently unregulated categorical dischargers' waste streams and unregulated sources.

DEQ should require broader use of the federal pretreatment program or alternatives.

DEQ should revise its rules to require municipalities that do not currently participate in the federal pretreatment program to (1) enter the program; (2) establish the equivalent of a pretreatment program without its administrative burdens; or (3) assist DEQ in ensuring industrial and commercial sources that discharge into the POTW are covered by DEQ-issued WPCF permits (see description below).

DEQ to support municipalities' use of more effective and efficient pollution controls.

DEQ should develop Best Management Practices (BMPs) manuals that address key pollutants and/or sources outside the federal pretreatment program (e.g., non-significant commercial dischargers) so that municipalities can efficiently reduce toxic pollutants from entering sewage collection and treatment systems. The BMPs could be incorporated into existing pretreatment programs, voluntary equivalent programs, through WPCF permits, and/or incorporated in municipalities' POTW NPDES permits. Such BMPs

should include model product bans and model municipal ordinances and address commercial and household sources of toxic pollutants as well as industrial dischargers.

DEQ should use WPCF permits to ensure more consistent and effective controls.

Water Pollution Control Facilities (WPCF) non-discharge permits are authorized by state law.¹⁹ DEQ rules define a WPCF permit as “a permit to construct and operate a disposal system with no discharge to navigable waters. A WPCF permit is issued by the Director in accordance with the procedures of this division or OAR 340-071-0162.”²⁰ As with NPDES permits, DEQ may issue general WPCF permits; several currently exist.²¹ WPCF permits can last up to 10 years.²²

DEQ should create new general WPCF permits to fill the gaps left by the federal pretreatment program. Using WPCF permits issued by DEQ to control toxics would be a way of consistently controlling discharges to POTWs without placing an administrative and financial burden on municipalities that currently do not have federal pretreatment programs or do not care to expand their limited programs.

DEQ should require equity in municipalities’ treatment requirements.

Some municipalities do not treat their own wastes but instead contract with other municipalities that operate POTWs. DEQ should develop rules that require jurisdictions that supply wastes to POTWs that are operated by jurisdictions with local limits to themselves establish equivalent local limits. Currently the owner/operator of a POTW may control – through pretreatment or other local limits and programs – the quality of its influent but is not able to ensure any limitations on toxic inputs to the sewage it treats that comes from another municipal source.

DEQ should require pollution controls where criteria are below quantitation limits.

The adoption of numeric criteria, many of which are under the quantitation limit, raises serious questions about the efficacy of the criteria adoption. An NPDES effluent limit based on quantitation limits may be allowing the discharge of a toxic pollutant in excess of the applicable numeric criterion. For this reason, DEQ rules should require a pollution prevention approach to those pollutants.

For this reason, DEQ should adopt rules that require the use of local limits for indirect dischargers (through pretreatment programs, WPCF permits, and/or other programs) to control pollutants from those dischargers holding NPDES permits where the POTW effluent limitations are based on quantitation limits, in lieu of applicable numeric criteria, where those discharges meet or exceed the quantitation limit. The local limits would apply to industrial and commercial sources of any pollutant for which the effluent limit is based on the quantitation limit.

¹⁹ See, e.g., ORS 468B.050.

²⁰ OAR 340-045-0010 (31)

²¹ OAR 340-045-0033(2).

²² OAR 340-045-0037(7).

Second, DEQ should adopt rules that require a pollution prevention approach to industrial, commercial, and household sources of pollutants for which a POTW WQBEL is established on the basis of quantitation limits but where the indirect discharges do not exceed quantitation limits.

Last, where DEQ determines that a water quality based effluent limit will not be included in a POTW permit because either the receiving water or the effluent are below the quantitation limit but where DEQ has reason to believe that indirect dischargers to the POTW are contributing that pollutant, a DEQ rule should require a pollution prevention approach to that source.