**Broad Spectrum General Permits, Use and Applicability**

**Introduction**

As part of the development of the proposed fish-consumption based human health water quality criteria, it is necessary to develop a series of implementation tools to assist the regulators and regulated community in permitting new and existing facilities. An indentified area of concern is the presence of naturally occurring and legacy pollutants in surface and ground waters used in municipal water systems and industrial non-production applications (e.g. non-contact cooling, boiler water, cooling tower blow down and filter backwash). It has been suggested that a General Permit (GP) might be used to efficiently implement the new water quality criteria for specific categories of discharge, or specific geographic areas.

GPs are a process that permitting authorities may use to implement common effluent limit requirements over a specified geographic area for a series of categorical discharges. For example the Department current allows GPs for the discharge categories of *cooling water, filter backwash, boiler blowdown, ground water treatment* and *washwater.* According to 40 CFR 122.21 and .28, a general permit may be written for categories that:

* *Involve the same or substantially similar types of operations;*
* *Discharge the same types of wastes or engage in the same types of sludge use or disposal practices;*
* *Require the same effluent limitations, operating conditions, or standards for sewage sludge use or disposal;*
* *Require the same or similar monitoring;*
* *In the opinion of the Director, are more appropriately controlled under a general permit than under individual permits*.

While researching the subject, two types of GP were identified that might be of use for the implementation of the new water quality criteria.

**Single Pollutant General Permit**

A single pollutant GP would allow the permitting authority to develop common effluent limits for multiple facilities with-in a defined geographic area such as a waterbody or watershed. Most state’s GP typically focus on specific industrial or stormwater activities. The preeminent example of the single pollutant GP is the [Long Island Sound General Nutrient Permit](http://www.envtn.org/uploads/LIS_permit_factsheet_2005.pdf) issued by the State of Connecticut. This is also a good example of the *watershed approach* to permitting.

To address significant water quality problems in the sound, Connecticut and New York’s regulatory authorities collaborated on a TMDL to determine the quantities of nitrogen reduction necessary to restore water quality. Connecticut then developed the GP to include a series of calculated nitrogen effluent limits for each individual discharger that translated the waste load allocations (WLA) from the TMDL. The state also implemented a Nitrogen Credit Exchange Program in conjunction with the GP which allowed the regulated dischargers the option to either meet their effluent limits or contribute monetarily (relative to the level of exceedance) to the state Clean Water Fund. The fund would be specifically used to initiate the construction of new nutrient treatment capacity or contribute to the operation of facilities that maintain excess capacity. In addition to the GP, the dischargers also had individual point source permits that regulated all other aspects of their operation and effluent discharge, but still referenced the nutrient GP. In this context, the single pollutant GP was utilized to simplify the implementation of a broad scale TMDL, integrate the findings into all the individual permits and ultimately set the framework for an innovative water quality trading system.

Only portions of this example are applicable for the implementation of Oregon’s new human health criteria. Current federal policy precludes the trading in WLA for toxics that might result in the exceedance of state human health water quality criteria. An area of benefit could be in the implementation of a broad reaching, single pollutant TMDL, such as the Willamette Mercury TMDL. Like the Long Island Sound example, the GP could be an excellent mechanism to translate complex TMDL WLAs and BMP requirements into specific effluent limits, streamlining the permitting process by a focused group of technical experts. This would relieve the regional permit writers, allowing them to focus on the remainder of each facility’s individual permitting. Another area of benefit might be the development of a GP (under general permitting authorities) to universally address specific “non-process” activities in all permitted facilities in a geographic area. This could effectively use a GP to geographically set the terms and effluent limits for non-process activities with in a individual permit, yet still rely upon individual permits for all other permitting activities.

**Broadening of Existing General Permit Classifications**

Many states, including Oregon, allow GPs for activities that involve the use of non-process waters such as non-contact cooling water, filter backwash, boiler blow down and ground water treatment. Although each state generally follows the federal regulations described in 40 CFR 122.21 and .28, there is a spectrum of allowable flow rates and effluent limitations applied in each program. Since most GPs allow for the use of surface and ground waters, nominal amounts of effluent concentration routinely occurs in many of these covered “non-process” activities. The regulatory passage below describes the effluent characterization instructions for existing industrial sources that essentially exempt these GPs from meeting water quality standards and allows for a deminimis increase in concentration.

40 CFR 122.21 (g)(7) *Effluent Characterization*: The requirements in paragraphs (g)(7)(vi) and *(vii)* of this section state that an applicant must provide quantitative data for certain pollutants known or believed to be present do not apply to pollutants present in a discharge solely as the result of their presence in intake water; however, an applicant must report such pollutants as present.

Part *(g)(7)(vi) and (vii)* refer to the portion of the application process that requires the monitoring of toxic pollutants in a sources effluent. In effect, since there is no requirement to monitor for toxics, there can be no assessment of reasonable potential and no water quality based effluent limits.

Oregon administrative rule (OAR 340-45-0033) allows for the adoption by rule or order (director) of GP for certain categories of minor discharge sources or minor activities. *Minor* is generally defined as discharging less than 1 million gallons per day (MGD) of effluent.

Oregon currently maintains the following GPs

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| 100-J | Cooling water/heat pumps | NPDES |
| 200-J | Filter backwash | NPDES |
| 300-J | Fish hatcheries | NPDES |
| 400-J | Log ponds | NPDES |
| 500-J | Boiler blowdown | NPDES |
| 900-J | Seafood processing | NPDES |
| 1200-A | Stormwater permit for gravel mining | NPDES |
| 1200-C | Construction that disturbs one acre or more | NPDES |
| 1200-COLS | Industrial stormwater discharging to Columbia Slough | NPDES |
| 1200-Z | Industrial stormwater | NPDES |
| 1300-J | Oily stormwater runoff, oil/water separators | NPDES |
| 1500-A | Tanks cleanup and treatment of groundwater | NPDES |
| 1700-A | Washwater | NPDES |
| 1900-J | Non contact geothermal | NPDES |
| 2100-J | Lower Columbia/Youngs floating residence | NPDES |

Learning from the applicable examples from the Long Island Sound GP, the following scenarios are offered to stimulate conversation and suggest new implementation tools.

1. Develop a new GP entitled “Oregon Permitted Facilities employing surface or ground water as Utility Water” (Utility Water Permit). The permit would cover the “pass-through type of activities, such as non-contact cooling (single & mulit-pass), cooling tower blow down, boiler water blow down, pump testing, etc. The permit would provide a tiered structure of temperature controls and effluent limits based upon flow rates up to 1 MGD. The permit would include a list of the major and minor facilities in Oregon that posses these minor activities and their applicable effluent limitation and operational requirements. Major non-process and process activities would still be addressed through individual permits.

In each facility’s individual permit, the activities covered under the Utility Water GP would be exempted from the normal reasonable potential analysis and potential WQBEL calculation

1. Allow sources to apply for and receive currently offered GPs (100 J, 200 J, etc.), and as described in Scenario 1, exempt the regulated activity from the normal reasonable potential analysis and potential WQBEL calculation. There would be no physical segregation of the non-process and process activities as long as a monitoring plan can be employed to determine the internal fate and transport of pollutants.
2. Encourage sources to physically segregate their applicable processes to allow for use of both an individual permit and GP. If necessary, the two facilities could be considered distinct business units, one providing a service (e.g. cooling, supply of heated water) to the other. This might be similar case to second part service providers for POTW services. It might be necessary for the two distinct facilities to each have their own outfall or share a common out fall at location that can be readily monitored.