LDWSF 19.6.9.1.5 Ecology + EPA Response

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

July 15, 2010

Mr. Eric Paul
Seattle Iron and Metals Corp
601 S. Myrtle St
Seattle, WA 98108

Dear Mr. Paul:

RE: Seattle Iron & Metals Corporation (SIM), Stormwater Engineering Report, Stormwater Quality Report, and Mixing Zone Report

The Department of Ecology received and reviewed the aforementioned reports submitted to Ecology for review and approval by ***kpff*** Consulting Engineers on behalf of SIM in April 12, 2010. SIM submitted these reports in response to the requirements sought in Order No. 6185 issued to SIM by Ecology on November 14, 2008.

In accordance with RCW 90.48.110 and WAC 173-240-010 through 180 of the Department of Ecology, the above-referred documents have been reviewed and are hereby conditionally **APPROVED.** It is conditionally approved because the scope of this round of technical studies did not cover adequate source control Best Management Practices to satisfy Lower Duwamish Waterway (LDW) cleanup activities. The reports do adequately address several aspects of treatment for the site.

Sampling conducted by EPA regarding the Lower Duwamish Waterway cleanup activities show that SIM's operation is potentially source of additional impacts to the Lower Duwamish Waterway. Sampling showed that dust from SIM's operations may contaminate stormwater. SIM's reports do not account for this source of 'industrial wastewater' as defined in WAC 173-240-020(8). These data indicate that air deposition and truck track out from SIM contribute contamination to other stormwater discharges (i.e., besides SIM Outfall 001), which in turn affect LDW water and sediments. The stormwater flows which are influenced by industrial operations at the facility and which require more evaluation include roof drain runoff, administrative parking lot runoff, and runoff to City of Seattle rights-of-way.

For reissuance of the NPDES permit, the SIM's new permit will require additional studies to characterize and rectify these industrial wastewater discharges, atmospheric deposition, and all other potential source control issues at the site, as well as their impact on LDW water and sediments.

Ecology's responsibility in review of this report is for general public health and environmental quality. It is Ecology's role to provide reasonable assurance that the proposed plan and related activities are adequate and pose no threat to the public health or to the environment. The

owners/operators of this project shall retain full responsibility for technical adequacy and completeness of this project. Neither Washington State Department of Ecology, nor the Ecology's reviewer(s), accepts any of the owners/operators professional responsibility and potential liability. This approval does not relieve SIM from responsibility for the lack of technical adequacy or accuracy of the content of the above-referenced documents. Nothing in this approval shall be construed as satisfying other applicable federal, state, or local statutes, ordinances or regulations.

For additional information, please contact Mr. Ed Abbasi P.E., Water Quality Engineer, at the address above or by telephone at (425) 649-7227.

Sincerely,

Kevin C. Fitzpatrick

Kevin C. Fitzpatrick
Water Quality Section Manager

KCF:EA:bl
CC: William M. Armour, P.E.
Allison Geiselbrecht, Floyd/Snider
Lisa Olson
Robert Wright, NWRO, WQ
Central File, NWRO

LDWSF 19.6.9.5.1 Ecology + EPA Response

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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SEP 15 2010

Reply To: OWW-130

Ed Abbasi, P.E.
Water Quality Program
Washington State Department of Ecology
Northwest Regional Office
3190 – 160th Ave. SE
Bellevue, WA 98008-5452

RE: Seattle Iron & Metals Corporation; NPDES Permit No. WA-003196-8

Dear Mr. Abbasi:

EPA appreciates the opportunity given to us by Ecology to review and comment on the Seattle Iron & Metals Corporation (SIM) Stormwater Quality Report, Stormwater Engineering Report, and Mixing Zone Report. EPA's comments on the Mixing Zone Report were transmitted to Ecology via email on June 15, 2010. Detailed comments on the Stormwater Quality Report reviewed by Kris Flint and Stormwater Engineering Report reviewed by Lisa Olson are enclosed.

On July 7, 2010, EPA sent Ecology a letter acknowledging Ecology's plan to approve the reports on a conditional basis so SIM could begin construction of site improvements during the current construction season. EPA recommended language for the conditional approval transmittal letter to SIM based on the issues observed during our review of the reports. EPA received a copy of Ecology's July 15, 2010 conditional approval letter to SIM, which contained the recommended language.

The enclosed comments identify the issues EPA found during our review, many of which are based on concerns about source control. The identified source control issues relate to discharges from this facility contributing to contamination in the Lower Duwamish Waterway which will require cleanup. As noted in our July 7, 2010, letter, EPA believes that the issues identified in our comments warrant a second round of engineering analysis to be required before and/or within the reissued permit to address all sources of industrial wastewater discharging from SIM's site, the effect of atmospheric deposition at the site, and all potential source control issues at the site. An important part of this engineering analysis will be to analyze the impacts of all of these sources on Lower Duwamish Waterway (LDW) water and sediments. EPA also believes that collection of source control data to inform the second round of engineering analysis

should be performed and submitted as part of SIM's NPDES permit application prior to reissuance of the permit.

EPA appreciates partnering with Ecology on the nexus between NPDES and sediment cleanups on the LDW. EPA's future reviews of Ecology's NPDES permits discharging to the LDW will focus upon source control issues.

If you have any questions, please call Kris Flint at (206) 553-8155 or Lisa Olson at (206) 553-0176.

Sincerely,

Michael J. Lidgard, Manager
NPDES Permits Unit

Enclosures

cc: Kevin Fitzpatrick, Water Quality Section Manager, Ecology NWRO
Jerry Shervey, Ecology NWRO

1. General Comment: The following comments are based on the perspectives of source control being conducted for the Lower Duwamish Waterway Superfund site[1] ("LDW"). In the context of source control we considered Seattle Iron & Metal's (SIM's) potential to impact sediments and water quality between River Miles 2.3 and 2.6 of the LDW. This is based on the extent to which SIM contributes contamination to LDW via track-out and atmospheric deposition to local stormwater flow. The scope of SIM's *Stormwater Quality Report* for the NPDES permit is limited to property boundaries which does not provide sufficient basis for evaluating the whole impact of SIM's operation upon sediments and water in the LDW.

Region 10 has developed the source control at the Commencement Bay Nearshore/Tideflats and has applied the same approach, plus lessons learned at the Portland Harbor and LDW Superfund sites. All pathways of contamination that may influence stormwater discharges to the LDW must be considered in terms of controlling chemicals of concern ("COCs") by means of engineering, technology and best management practices. SIM's *Stormwater Quality Report* generally fails to address their impacts to sediment quality or underlying causes of stormwater contamination (e.g., atmospheric contamination from shredder, inflow/infiltration from sub-surface soil/groundwater). The *Stormwater Quality Report* only describes SIM's surface operations within property boundaries as they may affect water quality alone and then further limits SIM's influence on the LDW by focusing on the collection and treatment of stormwater collected primarily from industrial areas.

2. General Question & Comment: It appears that SIM adds process water to stormwater from fire suppression at the hammer mill; dust control at the shredder; and wash water from non-ferrous loading dock & traffic areas. Is this allowed under State law and City code?

3. General Comment: The *Stormwater Quality Report* notes that some of SIM's untreated water goes to sanitary sewer, though which system receives it (i.e., King County or Seattle) is not always clear. At several points in the following comments, we indicate that all of SIM's stormwater needs to be collected and treated because it is clear that SIM is an ongoing source of COCs to the LDW. It is important to note that sanitary sewer is often viewed as a convenient receptacle for stormwater flow that is otherwise difficult to manage. However, stormwater routed from SIM to King County's Elliot Bay Interceptor system via the Michigan Street connection may, depending on volume, cause the CSO to discharge more frequently. The *Stormwater Quality Report* does not estimate volume for all portions of SIM's flow, nor do we have capacity information about King County's exact capacity in the Michigan CSO connection; but it is known that CSO capacity is limited at various locations throughout the LDW source area. Increasing either the volume or frequency of CSO discharge to LDW, compromises source control effectiveness of the County's the pre-treatment industrial waste program (IWP)/CSO discharge to the LDW. It is SIM's responsibility to manage the whole of their operation in a way that truly reduces COC releases (e.g., collection/treatment of all flow, adequate flow characterization, BMPs proven to be effective at reducing metals and PCB concentrations in storm water and solids). When SIM addresses this, then it will be appropriate to consider routing SIM's stormwater through municipal treatment as well.

4. Pages 2-1 – 2-2, Sections 2.1 (Facility Background) and 2.2 (Industry Information): The LDW receiving environment is compromised to the point that it is an NPL site. SIM discharges to this NPL-listed receiving environment. SIM's discharges must comply with both water and sediment quality standards. SIM should be aware that EPA's Superfund Record of Decision for the LDW may generate cleanup objectives for several COCs that are even more stringent than current state standards.

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[1] The LDW Site is listed on the National Priorities List under CERCLA (Superfund), but is being investigated under a joint order with Washington's Model Toxics Control Act (MTCA). Thus the cleanup objectives and risk-based criteria being developed for remediation and source control must comply with both federal and State rules and regulations.

5. Page 2-3, Section 2.3.2, Description of Receiving Waters: This comment enters additional information about the quality of SIM's receiving environment to the record, as well as additional information about COCs and pathways from the SIM operation to the LDW. This section of the SIM report does not account for information which has been detailed in reports for the CERCLA sediment investigation and in subsequent source control reports issued by Ecology.

> *Summary of Existing Information & Identification of Data Gaps, Lower Duwamish Waterway RM 2.3-2.8 East, Seattle Boiler Works to Slip 4* ("EIDGR") (SAIC 2008)
>
> *Source Control Action Plan, Lower Duwamish Waterway RM 2.3-2.8 East, Seattle Boiler Works to Slip 4* ("SCAP") (SAIC 2009)

SIM's report is missing data and information that should be included in the description of their receiving environment, their stormwater's character, and the effects of their discharges on the LDW. Missing information includes: (1) the sediment data discussed below, (2) the extent to which SIM's operations contribute COCs through stormwater pathways <u>not</u> related strictly to Outfall 001 (e.g., shredder-generated deposition on roof drains connect to municipal drains, COC track-out in lieu of sufficient wheel-wash), and (3) the extent to which historic soil and possible groundwater contamination in the area may affect the quality of groundwater inflow to stormwater (Section 4.3, SAIC 2008)

<u>Data for Receiving Sediments:</u> The discharge permitting evaluation conducted for SIM must consider data from the following LDW surface and sub-surface sediment sampling locations because both water and sediment quality are affected by the discharge. These data are important in terms of SIM's contribution to exceedances of sediment management standards (SMS) as well as the cleanup levels being developed for joint State/federal remediation of the LDW. Specific sample locations as referenced to sediment data tables (Table A-1) and Figure 3 of Ecology's EIDGR (SAIC 2008) are listed below. For the purpose of these comments, SIM is considered to impact sediments in the Myrtle Street Embayment, directly offshore of its property, and in the area of the South Othello St stormdrain outfall. These data correlate to the location of Seattle municipal stormdrain outfalls for (1) South Myrtle Street, (2) South Garden Street, and (3) South Othello Street, all of which are described in Section 4.3 of the EIDGR (SAIC 2008). For the purpose of reviewing SIM's discussion of their receiving environment, the following LDW RI sediment samples correlate with the outfall locations influenced by SIM.

Outfall	Surface Sediment Sample #	Sub-surface Sediment Sample #
South Myrtle Street	SS83, 682, 172, 716, 736	SC41
South Garden Street	684, 174, 175, 173, 685, 683	SC42
South Othello Street	SS87, 717, 176, 168, SS333, 738, SS88, 167	

Next we reviewed the sediment data from these sample locations based on Appendices A-1 and A-2 of the EIDGR for surface and sub-surface sediments (SAIC 2008). The following table shows levels of sediment contamination and highlights COC levels that are requiring sediment cleanup in the area impacted by SIM's via their effect on local stormwater quality (i.e., S Myrtle St, Garden Street, S Othello St). Note that source control focuses on COCs that exceed the SMS, or lowest apparent effects threshold (LAET) in surface and sub-surface sediments. Other COCs may be identified on case-by-case basis if sediment management standards (SMS) are not available for them (Ecology 2004, SAIC 2008).

Contaminant	Sediment Concentration Relative to SMS (% of SMS)[2]		Does NPDES for Discharge 001 address this COC? How?
	Surface	Sub-surface	
PCB (total)	50% or >		Limit for whole water only, total 10 ug/L
mercury	50% or >	50% or >	
arsenic	25% - 50%		
copper	25% - 50%		Limit for whole water only, total recoverable 5.8 ug/L
zinc		25%-50%	Limit for whole water only, total recoverable 95.1 ug/L
cadmium		25%-50%	
bis-2-ethylhexyl phthalate	50% or >	50% or >	
butyl benzyl phthalate	25% - 50%	50% or >	No limit, whole water sampling only[3]
chrysene	50% or >	20%-25%	
fluoranthene	50% or >		No limit, whole water sampling only
dibenzo(a,h)anthracene	25% - 50%	25%-50%	
benzofluoranthenes (total)	25% - 50%		
bezno(a)anthracene	25% - 50%		
phenanthrene	25% - 50%		
acenaphthene	25% - 50%	50% or >	
benzo(a)pyrene	25% - 50%		
benzo(g,h,i)perylene		20%-25%	
phenol		25%-50%	No limit, whole water sampling only

Sections 2.2.2, 2.2.3, 4.3.3 also summarize these same sediment data as follows (SAIC 2008).

> Mercury, PCBs, PAHs, dioxin/furans, and organo-tin compounds are present in all three sediment areas.
>
> Dioxin/furans are considered as COC because of high concentrations – particularly within the South Myrtle St Embayment. Furans are detected in samples 682, 683, 684, 685, 717.
>
> Organo-tins are found particularly offshore of Seattle Boiler Works, SIM and Puget Sound Truck Lines. Tributyltin is detected in samples 683 & 717.
>
> Garden Street Outfall: SQS exceedances in sample SS88 for mercury 0.62 mg/kg dry wt (which is 1.5 times the SMS apparent effects level).

<u>SIM is an On-going Source to LDW</u>: The City of Seattle stormwater utility (SPU) has worked with Ecology and EPA since 2003 to trace and identify sources of sediment contamination that may reach the LDW via storm or combined sewer overflow. The process is called "source-tracing" and relies on analysis of solids (sands, silts, clays) that accumulate in catchbasins, manholes, sumps, lines and other structures in the stormwater system. Particular to SIM, source-tracing samples have been taken both

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[2] Metals' data are expressed in "mg/kg dry weight" basis and compare to Apparent Effects Threshold values (AETs) which promulgated directly as SMS in these units. AET values for organic COCs are normalized with the organic carbon values from each sample in order to compare with SMS which are expressed as "ug/kg organic carbon normalized" values.

[3] See Washington NPDES Permit No. WA-003196-8, Condition S2, footnote "b" indicates that sampling to occur monthly by grab method and within one hour after the treatment system begins discharging in response to a qualified storm event.

on the site and in surrounding city right-of-ways discharging to South Myrtle, South Garden and South Othello Streets. Source-tracing samples are used only to identify potential COC sources and have proven particularly successful with respect to metals and hydrophobic contaminants such as PCBs, dioxin/furans, certain HPAHs and LPAHs, and phthalates.

Source-tracing data SPU obtained from 2008 and 2009 (SPU 2010) are attached to these comments. Note that Ecology determined that SIM is a source of sediment contamination to the LDW via all three of the municipal outfalls (SAIC 2008, SAIC 2009). SPU's attached data are coded by catchbasin (RCB or CB) or manhole (MH) location in the public right-of-way and are compared to COCs' LAET values (mg/kg dry weight for metals, ug/kg for organics) to determine whether a source exists. Catchbasins and manholes in the South Myrtle St and South Garden St sub-basins are listed below, along with manhole locations for samples taken in the South Brighton Street sub-basin, just north of the South Myrtle St sub-basin. South Brighton Street does not receive truck traffic going to/from SIM like South Myrtle and South Garden Streets; consequently, traffic impact from SIM on the South Brighton St sub-basin is thought to be minimal.[4]

South Myrtle Street source tracing sample locations are: MH100b, RCB146, RCB147, RCB148
South Garden Street source tracking sample locations are: MH240, CB207
South Brighton Street source tracking locations are: MH205, MH224, MH225, MH226.

The following rough comparison of SPU's attached source-tracing data shows the following differences between sub-basins SIM's traffic affects (South Myrtle and South Garden) and one it does not (South Brighton).

SPU '08/'09 source tracing – LAET Exceedance Factor Ranges		
COC	**South Myrtle & South Garden**	**South Brighton**
Mercury	1.8 – 4.58 (South Myrtle) 6.6 – 10.5 (South Garden)	1.1 – 8.3
Zinc	3.76 – 7.1 (South Myrtle) 21.8 – 32.4 (South Garden)	1.73 – 2.33
Copper	1.8 – 2.62 (South Myrtle) 5.64 – 20.5 (South Garden)	no LAET exceedances
Phthalates (any LAET for any of 6 phthalates)	1.8 – 69.8 (South Myrtle) 1.6 – 190.5 (South Garden)	1.7 – 3.8
PCB (total)	5.3 – 28.4 (South Myrtle) 140 – 192 (South Garden)	1.3 – 6

In addition to the attached SPU data from 2008 and 2009, EPA and SPU recently split samples during a site inspection at SIM. The table below summarizes newer data collected during a joint, EPA/SPU, site inspection.[5]

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[4] However, shredding processes at SIM release COCs to the atmosphere and downwind/upwind effects of SIM upon other stormwater/CSO basins are not determined at this time, except for the most immediate area where deposition is obvious (e.g., adjacent & on-site roofs, streets, vehicles).

[5] During a May 11, 2010, joint inspection EPA split samples with SPU. SPU's validated data from the split sampled are included in the attached spreadsheet (SPU 2010). As of June 2010, EPA has only validated PCB results from this sampling event. EPA data validation for metals and other COCs is expected in September 2010.

SPU 2010 Source Tracing Data from SIM Site Inspection (dry wt values)								
Location	PCBs (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Zn (mg/kg)	bis(2-ethylhexyl) phthalate (ug/kg)	butylbenzyl phthalate (ug/kg)	dimethyl phthalate (ug/kg)
RD1	1.93	1,090	1,410	0.92	5,370	33,000	5,000	2,500
RD2	4.57	975	1,700	2.56	8,310	41,000	4,300	620
CB157 (filter)	2.96	1,890	1,260	0.80	4,940	11,000	2,200	510
CB157 (sump)	4.02	2,240	1,380	1.55	5,880	12,000	4,600	1,100
RCB189 (filter)	1.65	3,280	904	0.66	3,890	84,000	6,200	870

Locations of 5/11/2010 Samples:

1. RD1: Rooftop of SIM office building on S Myrtle (discharges untreated to the City SD on S Garden St.)
2. RD2: Rain gutter on the roof of SIM maintenance building located next to their loading/shredder operations (discharges untreated to City SD on S Myrtle St)
3. CB157: CB in the SIM employee parking lot on S Myrtle St (picks up runoff from the roof drains on their office bldg and discharges untreated to the City SD on S Garden St). Sampled from the filter sock installed in the CB and from the CB sump.
4. RCB189: CB on S Myrtle St right next to SIM main driveway entrance. SPU sampled the filter, but EPA sampled the CB sump.

We converted SPU's most recent source-tracing data (above) to the LAET exceedances shown below. This enables comparison with older source-tracing data and sediment levels in the LDW.

SPU 2010 Unvalidated Data from SIM - Conversion to LAET & LAET Ranges of Exceedance		
Contaminant	Lowest Apparent Effect Threshold	Range of LAET Exceedance
PCB total	0.13 (mg/kg dry weight)	12.7 (in RCB189 filter) to 35.15 (in RD2)
copper	390 (mg/kg dry weight)	2.5 (in RD2) to 8.4 (in RCB189 filter)
lead	450 (mg/kg dry weight)	2 (in RCB189 filter) to 3.7 (in RD2)
mercury	0.41 (mg/kg dry weight)	1.6 (in RCB189 filter) to 6.24 (in RD2
zinc	410 (mg/kg dry weight)	9.49 (in RCB189 filter) to 20.27 (in RD2)
bis(2-ethylhexyl) phthalate	1300 (ug/kg dry weight)	8.46 (in RD1) to 64.62 (in RCB189 filter)
butylbenzyl phthalate	63 (ug/kg dry weight)	34.92 (in RD1) to 98.41 (in RCB189 filter)
dimethyl phthalate	71 (ug/kg dry weight)	7.18 (in RD1) to 35.2 (in CB157 filter)

As one result of LDW source control concerns regarding all of the data presented here, EPA plans to sample air quality at SIM. In concert with air sampling, all of SIM's stormwater, including "non-industrial" areas, should be collected and treated to better control sediment and water quality in the LDW, as noted in Comment #6, below.

6. Pages 3-1 – 3-6, Section 3, Stormwater Discharge Associated with Industrial Activity: As noted in the previous comment re Section 2.3.2, SIM influences stormwater discharge from the South Myrtle St and South Othello St municipal stormdrains as well as Outfall 001 (which is an extension of the City's South Garden St stormdrain). Given the nature of LDW sediment contamination and source tracing data in the vicinity of SIM, additional stormwater characterization should be conducted before the next NPDES permit is issued and Ecology decides about authorizing implementation of a mixing or sediment impact zone for SIM. In order to evaluate source control needs at SIM for the LDW and to implement them, EPA believes the following COCs and phases of stormwater load must be more fully characterized as follows[6].

[6] EPA Region 10 developed a standardized set of monitoring options for industrial stormwater scenarios. The source control-based monitoring approach is most succinctly written as a task of work conducted for the Portland Harbor RI and is as a series of documents associated with Round 3A Stormwater Sampling (e.g., SAP, FSP, QAPP) which are available at *http://yosemite.epa.gov/R10/CLEANUP.NSF/ph/Technical+Documents*. The detailed discussions of these have been shared with the LDW source control workgroup and industrial stormwater dischargers at both LDW and Portland Harbor Superfund sites. This information has also been circulated to water, waste and cleanup programs at both EPA and Ecology.

A) Characterize whole stormwater flows: Collect five (5) wet season storm events should be sampled and analyzed for the full suite of SMS parameters. Additionally, collect at least one (1) dry season flow sample and analyze for the same parameters.

B) Characterize storm solids: SIM should work with Ecology & SPU to identify key sampling locations for periodic sampling where storm solids accumulate (e.g., catchbasin, sump, manhole)

C) Characterize atmospheric deposition from shredding: SIM should work with Ecology, SPU and PSCAA to identify key sampling locations on impervious surfaces such as roofs and parking lots since it is clear that stormwater is affected, regardless of where discharge currently occurs.

7. Pages 3-1 through 4-10, Section 3 (Stormwater Discharge/Industrial Activity) and Section 4 (through 4.4.1, Site Operations and Traffic Circulation): The *Stormwater Quality Report* is clear that grading must be addressed to prevent sheet runoff from reaching the LDW and to manage flooding on site. It appears that design flow at SIM may be within the design parameters of Seattle stormwater code, although every effort should be made to determine if the single storm design event ensure the 91% flow capture as estimated by the continuous flow design model now cited in the City code. Text and figures in these sections do not address stormwater collection/treatment for proposed expansion[7]. The question of whether or not the current system can accommodate collection and treatment of stormwater from the proposed development (including roof and parking area drainage) must be addressed before a new NPDES permit is issued. The next permit must be based upon a sound understanding of the *whole* SIM operation and what is or is not feasible for providing source control to protect water and sediment quality in the LDW.

The following points are apparent from source-tracing data discussed above in Comment #4 and the discussion in these sections of SIM's *Stormwater Quality Report*, notwithstanding the issue of additional area that requires treatment and SIM's current capacity for stormwater collection and treatment.

A) All indications are that atmospheric deposition from SIM is likely a significant source of contamination to stormwater; consequently, EPA believes SIM should connect drains from the administrative areas (i.e., parking, roofs) to the on-site collection and treatment system. This would include areas that currently miss treatment and discharge through permitted Outfall 001, as well as administrative, non-industrial areas that currently discharge via City's stormdrains at South Myrtle or South Othello Streets.

B) Track-out from truck traffic through the site must be managed better.

(1) EPA does not agree that all opportunities for wheel wash have been exhaustively investigated. Small units (20' X 20') have demonstrated good efficiency at sites with traffic that seems as intense as SIM's. The agencies, SPU and SIM should discuss this issue because drawings throughout this report suggest space may be available despite the fluctuation of materials being handled on-site. SIM must seriously consider wheel wash installation and/or traffic reconfiguration in terms of the recently purchased space along

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[7] Seattle Department of Planning & Development proposed a SEPA determination of no significant impact for SIM expansion to a property formerly known as Trim Systems. This property sits between South Orchard and South Garden Streets and abuts SIM (Shalimar Properties). (See Figure 5, SAIC 2008.) The plans and project description available to Ecology and EPA via the SEPA process are not clear regarding square footage of the project or plans pertaining to traffic modification at the extended SIM site.

South Garden Street. Alternatively, SIM should also consider requesting the City to vacate South Garden Street as sole truck access/egress.

(2) Street sweeping should be conducted twice daily with the Tymco-600 regenerative air sweeper which is generally more efficient than rotary/mechanical sweeper(s) that are currently used. Streets to be swept at this frequency include the primary truck routes to/from SIM. These appear to be:

(a) South Myrtle from LDW to East Marginal Way South (currently only the 700+ feet from LDW to Fox Ave S is swept),
(b) Garden Street South from 8th Avenue South to SIM gate, and
(c) 8th Avenue South from East Marginal Way South to South Garden Street.

(3) If source-tracing continues to show elevated concentrations of COCs (see Comment #4) continue to appear after street sweeping increases, additional/different source control measures will need to be discussed with SPU and the agencies' LDW source control programs. Air programs/agencies may also need to be involved.

C) Mercury switches must be removed before materials are shredded. EPA's understanding is that SIM posted a sign indicating mercury switches should be removed but that SIM does not ensure switches have actually been removed. EPA applauds the work of recycling and realizes it is an inherently difficult process to control for COC (re)releases to the environment; however, source-tracing and site data clearly show signage alone is not an effective mercury abatement program. It is critical that the agencies and SIM find some way to manage mercury switches which apparently continue to enter the recycling and shredding processes.

8. Pages 4-7 to 4-10, Sections 4.4.2 (Storm Drain Structures) and 4.4.3 (Control of Stormwater Runoff): A number of recommendations are posed throughout the *Stormwater Quality Report* and most appear to be summarized in these two sections. In general, the stormwater collection/treatment system seems to be functioning more-or-less as intended in 1999. The the1999 design does not (1) collect and treat of <u>all</u> stormwater from the site or (2) account for all of the consequent impacts to stormwater except for water column effects at Outfall 001. The limited stormwater design thus presents fundamental problems for LDW source control. Design exceptions which have occurred over time and must now be addressed are listed below.

A) Grading for catchbasins along the LDW shore should be on the order of at least 1% to ensure that stormwater does not move toward the LDW. This includes catchbasins 13, 14, 15, 16, 45, 44 and 24 (see Figure 4.5). This report acknowledges that poor drainage/collection in the areas of CBs 13, 14, 15 and 16 needs to be addressed. When the grading is corrected at these four CBs, the grade at all of the shoreline CBs should be confirmed. If grading is not sufficient to direct runoff away from the LDW, additional measures recommended throughout this document should be considered (e.g., berms, metal curb rail).

B) Sheet runoff from the area between the north and south docks must be collected and treated.

C) Both north and south docks must be repaired so that stormwater and materials from traffic and the yard are kept from the LDW. Slopes on the repaired docks should be verified (see A, above) for efficient drainage away from the LDW.

D) This report frequently notes how the footprints of scrap piles fluctuate, often to the extent that CBs are covered and not accessible for maintenance. CB design function and efficiency for collecting stormwater depends on adequate grading and the assumption that water can run into

them. It appears from this report that SIM's scrap piles impair the design function and efficiency of the stormwater system, which is critical to reducing SIM's recontamination potential to the LDW.

(1) When product/waste piles encroach on a CB located within property boundaries, SIM should cover it to prevent materials from entering the system. Re-routed or backed-up flow should drain to the treatment system.

(2) SIM's stormwater collection/treatment system needs to be monitored specifically for two reasons – to fully characterize all of their flow and to determine source control effectiveness as controls are implemented across the site. Storm solids at key catchbasins and manholes need to be monitored for rate of fill and for COCs found in the LDW. Note this COC screening approach has been used at other industrial sites along the LDW: where and when COCs prove absent in the whole water or solid phase of storm flow they are removed from the site-specific monitoring plan.[8]

It is also EPA understands that SIM installed CB inserts within the public right-of-way, which is a violation of municipal code. In the future, Sim must work with SPU regarding any actions related to stormwater structures within the public right-of-way.

The *Stormwater Quality Report* indicates SIM is not inclined to consider reconfiguring either the scrap pile locations or traffic patterns. This will be a topic of discussion as the agencies and SIM work toward a comprehensive understanding of the entire SIM property and operation and determine what is or is not feasible for source control sufficient to protect water and sediment quality in the LDW (Comment #6).

9. Section 5 (Industrial Process Water) and Section 6 (Evaluation of Source Control Measures): These sections are based on the very narrow view that only certain aspects of the SIM site and operation are environmental problems. As noted in previous comments, EPA and Ecology source control for the LDW are clear that the whole of SIM's site and operation is an ongoing source of COCs to the LDW. Sections 5 and 6 of this document describe industrial processes, stormwater BMPs and elements of SIM's stormwater management plans that generally meet the expectations of established state and federal regulatory approaches; however, the report assumes the <u>only</u> stormwater affected by SIM is discharged from Outfall 001 <u>and</u> that all of these measures are all effective. This is not the case, as clearly shown by data from the LDW and source-tracing. SIM operations impact stormwater that drains off the site into municipal roads, stormdrains and the LDW. SIM manages truly impressive volumes of material on a relatively small, compact site; consequently, the stormwater collection and treatment system are not functioning efficiently. First, all of SIM's stormwater should be collected and treated. Next, physical repairs are needed across the site along with modifications to certain practices (e.g., better track out control, sweeping). This work is critical to reducing COC impacts via stormwater discharge to the LDW Superfund site. SIM's exact plans for newly acquired property are not precisely clear[9], but they should include reconsideration of basic source control measures needed to minimize SIM's contribution of metals, PCBs, HPAHs and phthalates to the waterway.

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[8] Most recent and notable examples include: Insurance Auto Auction, Inc. (stormwater discharge at former PACCAR/Kenworth site), Terminal 117 (groundwater discharge & non-NPDES and stormwater discharge to sanitary), and Boeing Plant 2 (stormwater discharge at RCRA Corrective Action facility).

[9] Application to Seattle DPD has conflicting information within it concerning size and intended use of spaces. These plans do not seem consistent with the description of plans in this *Stormwater Quality Report.*

Attachment: Samples in vicinity of Seattle Iron and Metals (dry weight). "Myrtle_samples report_table-DW" (SPU 2010).

References in Comments

Ecology 2004. Lower Duwamish Waterway Source Control Strategy. Ecology Publication No. 04-09-043. Washington State Department of Ecology (Northwest Regional Office). January 2004.

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http://yosemite.epa.gov/r10/CLEANUP.NSF/LDW/Lower+Duwamish+Waterway+Phase+I+Remedial+Investigation+Report/$FILE/phase_1_ri_final.pdf

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SAIC 2008. Summary of Existing Information & Identification of Data Gaps, Lower Duwamish Waterway RM 2.3-2.8 East, Seattle Boiler Works to Slip 4. SAIC for Ecology. May 2008.

http://www.ecy.wa.gov/programs/tcp/sites/lower_duwamish/sites/slip4_RM%202-3_2-8/dataGapsReport/data_gaps_report.htm

SAIC 2009. Source Control Action Plan, Lower Duwamish Waterway RM 2.3-2.8 East, Seattle Boiler Works to Slip 4. SAIC for Ecology. June 2009.

http://www.ecy.wa.gov/biblio/0909083.html

SPU 2010. Samples in vicinity of Seattle Iron and Metals (dry weight). Excel spreadsheet titled: "myrtle_samples.xls report_table-DW". Provided to EPA by Beth Schmoyer, SPU. Prepared by Beth Schmoyer, Seattle Public Utilities.