



Ministry of
Environment

Instrument Drafting – Common Issues

**CSAP Professional Development Workshop
Vancouver**

October 26, 2011

Outline

- Background
- Common Issues
 - Cover letter
 - Body of instrument
 - Schedule "A" (site plan)
 - Schedule "B" (conditions)
 - Certificate of Compliance
 - Approval in Principle
 - Schedule "C" (substances)

Background

- Schedule “B” conditions in AiPs and risk-based CoCs
 - Proposed framework posted summer 2010 (examples now out of date)
 - Revisions incorporated into new instrument templates
- Schedule “C” added (list of substances)

Background

- Template changes, especially Schedule “B” conditions, intended to improve:
 - Clarity
 - Transparency
 - Consistency (level playing field)
 - Flexibility (level/type of reporting; changes to approved schedules)
 - Compliance verification/follow up

Background

- New templates are different
 - **Please do not** use a previously issued instrument as a template (even if it is recent)

- New templates in CSAP submission manager
 - CSAP screening will include check against templates – including Schedule “B” conditions
 - AP may recommend additional conditions in Schedule “B” (site specific circumstances);
 - Deviations from the template must be highlighted & a rationale provided; or
 - Application will be returned

Background

- Procedure 12 – Preparing and issuing contaminated sites instruments
 - Guidance for ministry staff and Approved Professionals who prepare draft instruments
 - Includes instrument templates (determination, AiP, CoC, WAS designation); and
 - Templates for CSRA conditions when:
 - Risk-based standards used at receiving site; or
 - Contaminated soil relocated for treatment at a receiving site

Background

- Procedure 12
 - Will be posted for comment on Land Remediation Section website
 - Feedback welcome – especially additions to examples of common risk management conditions listed in Condition 1 of all risk-based CoCs

Common Issues – cover letter

- Cover letter
 - Address to responsible person(s) and copy Approved Professional/consultant
 - Copy Land Remediation Section, Surrey if the site is within the Lower Mainland Region
 - Determinations – send copies to parties with registered interests on land title and others identified in EMA s. 44(2)

Common Issues – body of instrument

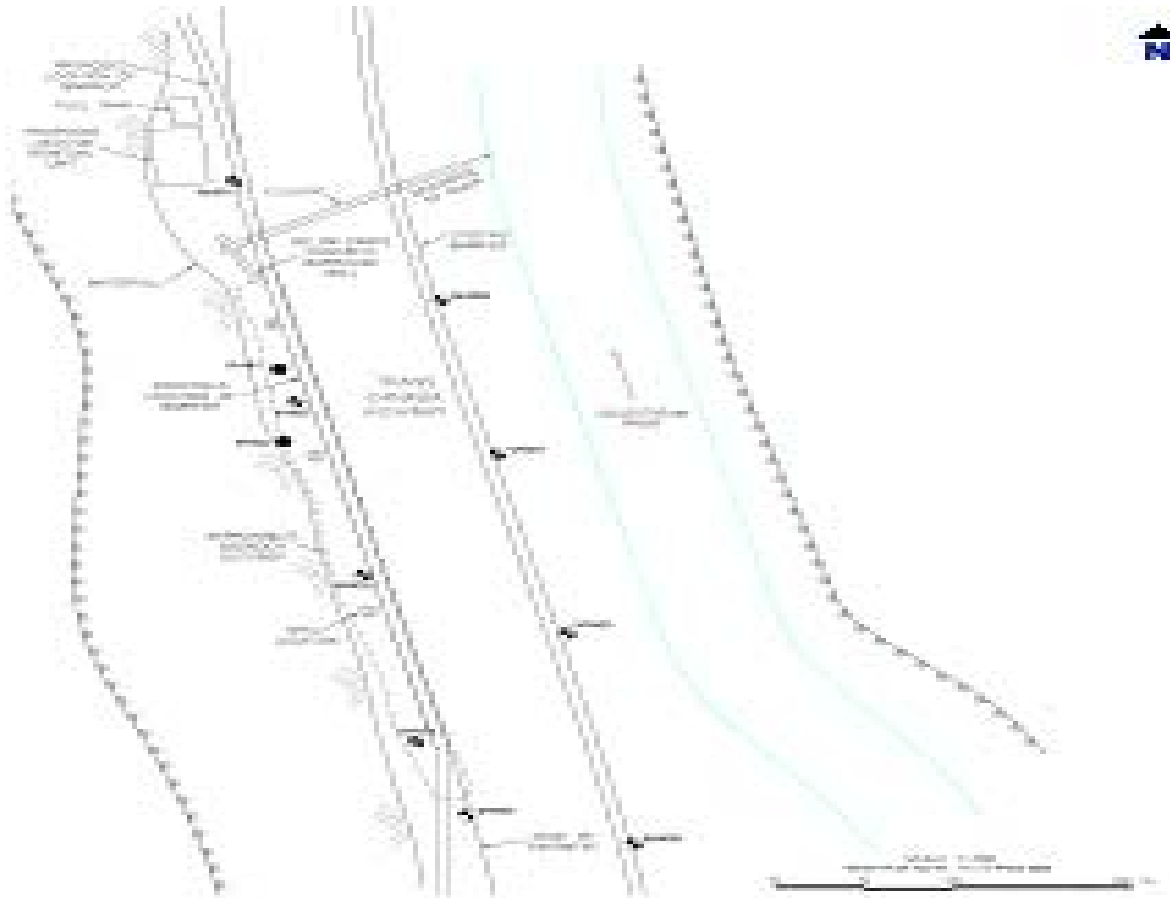
- Body of instrument
 - Left justify only
 - If preapproval issued, include ministry letter in documents list (and include any conditions specified in the preapproval letter in Schedule “B”)

Common Issues – Schedule “A” site plan

- Schedule “A” – site plan
 - Delineate subject site by heavy bolded line
 - Avoid colour (does not photocopy well)
 - Show street names
 - Refer to Administrative Guidance 5
 - Doug’s rule “Can I make a photocopy of this Schedule “A” and drive to the site?”

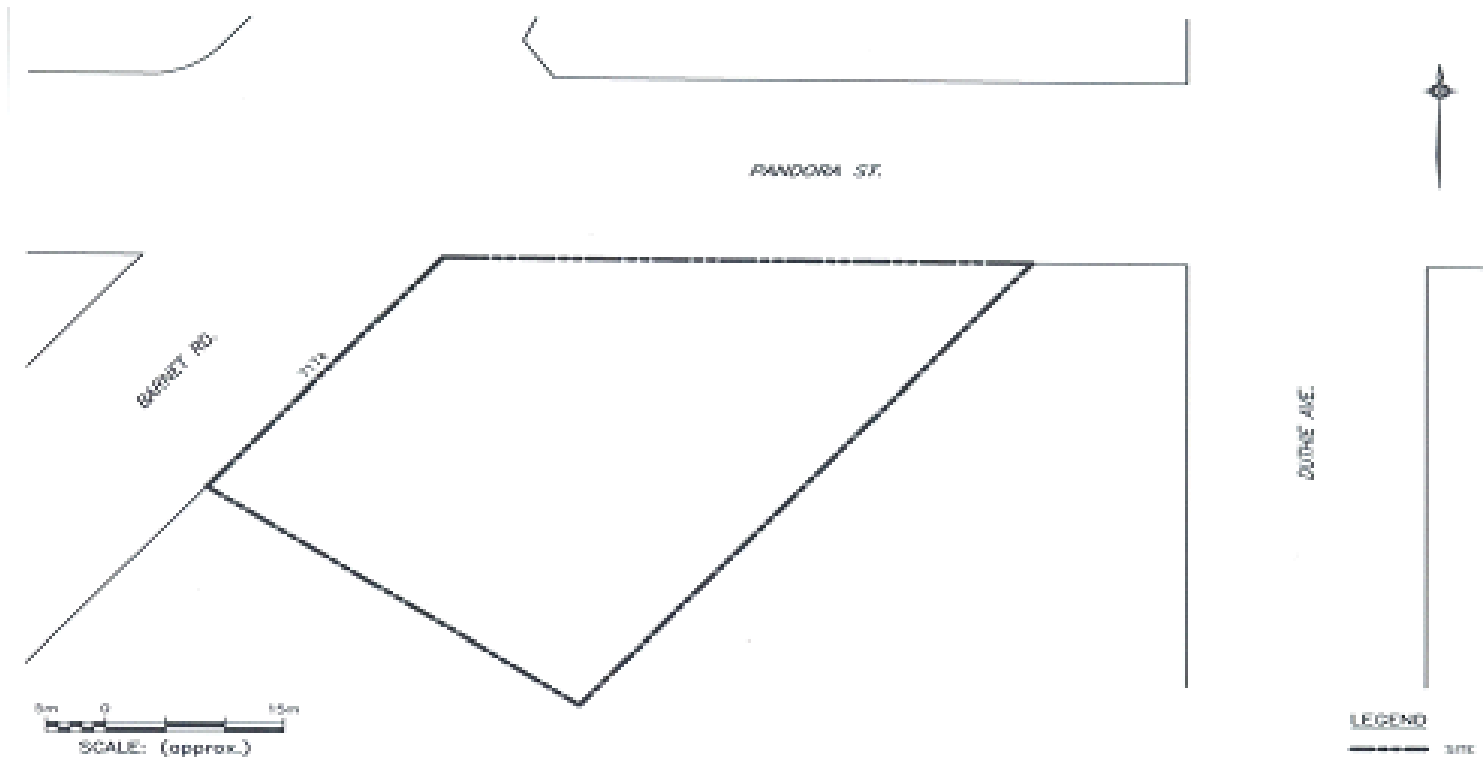
Common Issues – Schedule “A” site plan

e.g. site plan requires more information



Common Issues – Schedule “A” site plan

e.g. clearly marked site boundary



Common Issues – Schedule “B” conditions

- Use the standard clauses in the new templates
- Do not use a previously issued instrument as a template (even if recent)
- AP may recommend additional conditions in Schedule “B” (site specific circumstances);
- Deviations from the template must be highlighted & a rationale provided
- Incomplete submissions using older versions of the templates and conditions will be returned to the AP for correction and resubmission

Common Issues – Sched “B” risk-based CoC

- Applicable clauses vary with Remediation Type (1, 2, 3A or 3B)
- Remediation Type descriptions available at: <http://www.env.gov.bc.ca/epd/remediation/site-monitoring/pdf/risk-mgmt-conditions.pdf>
- Included in Procedure 12 – Preparing and issuing contaminated sites legal instruments

Common Issues – Sched “B” risk-based CoC

Remediation Types – see Table 1 at:

<http://www.env.gov.bc.ca/epd/remediation/site-monitoring/pdf/risk-mgmt-conditions.pdf>

- **Type 1** – e.g. passes SLRA or DRA based on existing site conditions and site use (exposure pathways are naturally controlled) or meets site specific risk-based standards; no ACTIVE RM
- **Type 2** – e.g. asphalt cover, vapour barrier, fencing, institutional controls (signage – no digging/trespassing, etc.; restrictions on soil disturbance/land use, etc.)

Common Issues – Sched “B” risk-based CoC

Remediation Types – see Table 1 at:

<http://www.env.gov.bc.ca/epd/remediation/site-monitoring/pdf/risk-mgmt-conditions.pdf>

- **Type 3** – e.g. failure will likely result in:
imminent exposure > human health risk-based site-specific standards; discharge to an aquatic receiving environment > BCWQG or site-specific risk-based standards; or contaminant spreading at concentrations > UCC (P11).
 - Groundwater pump & treat, soil vapour extraction & treatment, engineered barrier, etc.

Common Issues – Sched “B” risk-based CoC

Red highlighted text is incorrect

1. Any changes to the conditions **or circumstances** described in the risk assessment could invalidate the assessments. **If a change in the conditions or circumstances occurs, the site owner is required to notify the ministry within 30 calendar days and submit revised or amended assessments for review and approval by the ministry. Otherwise, this Certificate is rescinded. The assessment to which this condition applies is contained in:**
 - Document list
2. The principle risk management conditions **or circumstances** upon which the risk assessment is based include the following:
 - a) Land use at the site remains Commercial

Common Issues – Sched “B” risk-based CoC

Corrections highlighted in blue

1. Any changes to the conditions described in the risk assessment could invalidate the assessment. The Director may rescind this Certificate of Compliance if the conditions imposed herein are not complied with. Risk management measures required to satisfy risk-based standards must be maintained as described in the following documents:

- Document list

The principal risk management conditions upon which the risk assessment is based include the following:

- a) Land use at the site remains Commercial

Common Issues – Sched “B” risk-based CoC

- Performance verification clauses (for Remediation Types 2 & 3)
4. Performance verification must be undertaken as specified in the following plan(s):
 - <Provide *title of Performance Verification Plan(s)* (*italicized*), author, name of firm and date.>
 - or as agreed by the Director in response to an acceptable request for modification.
 5. Up-to-date records of performance verification actions and results must be maintained by the responsible person(s) or their agent. The records must be available for inspection by the Director.

Common Issues – Schedule “B” CoCs

- New “vapour clause”
 - Replaces previous versions, no associated footnotes

“Unless approved by the Director, the structures and locations of buildings onsite and offsite must remain consistent with the range of building structures and locations assumed in the vapour assessment, and building depths onsite and offsite must remain the same as, or shallower than, the building depths assumed for the selection of vapour attenuation factors in the vapour assessment.”

Common Issues – Schedule “B” AiPs

- Regular reporting is mandatory in all AiPs
- Two options
 - AP statement submitted at x frequency (Clause 6) + report must be submitted if requested by Director (Clause 7); or
 - Report submitted at x frequency (Clause 5)

Common Issues – Schedule “C”

- APs must ensure that:
 - Only substances where there is a CSR standard are listed
 - Omit heading if there are no substance within that medium – e.g. for substances only in soil, omit water and vapour references
 - Substance names as they appear in CSR standards schedules are used
 - Use caution if cutting and pasting in lab reports as they often use synonyms which differ from the CSR schedules

Common Issues – Schedule “C”

Requires correction (commercial land use example)

Substances evaluated in soil:

- Antimony, barium, beryllium, cobalt, molybdenum, nickel, selenium, silver, tin, **vanadium**, arsenic, cadmium, chromium, copper, lead and zinc;
- VPHs, LEPHs and HEPHs;
- Benzo[a]anthracene, **C**hloroform, **D**ichloroethane (1,1-, 1,2-), **D**ichloroethene (1,1-, 1,2-), **D**ichloromethane, etc...

Common Issues – Schedule “C”

Requires correction (no water use example)

Substances evaluated in water:

- Antimony, arsenic, barium, beryllium, cadmium, chromium III, chromium VI, cobalt, copper, lead...;
- VPH_w , $LEPH_w$, VH_{w6-10} and EPH_{w10-19} ;
- 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene...;
- Benzene, ethylbenzene, styrene and toluene; and
- Acenaphthene, acridine, anthracene, benzo[a]anthracene, benzo[a]pyrene, etc...

Common Issues – Schedule “C”

Corrected version (no water use example)

Substances evaluated in water:

- VH_{w6-10} and EPH_{w10-19} .

Common Issues – Schedule C

- Include the following clause when an attenuation factor has been used (in the current template):

“Site investigations revealed that the concentrations of substances in vapour are less than or equal to the Generic Numerical Vapour Standards in Schedule 11 of the Contaminated Sites Regulation when the appropriate attenuation factor(s) are applied. The site was not contaminated with respect to substances in vapour provided that the conditions at the site as described in the documents listed above are maintained <briefly describe site conditions, e.g., slab on grade>. Remediation of the vapour was therefore not required.>”

Common Issues – Schedule “C”

Example description of site conditions qualifying use of the attenuation factor

- The predicted concentrations of benzene and 1,2-dichloroethane in indoor and outdoor air were greater than the CSR RL standards for protection of human health;
- Land use at the site remains residential;
- The building enclosed space dimensions are 71 m long x 19 m wide and 2.1 m high or larger;
- The building foundation thickness is 12 cm or greater; and
- The base of the building foundation is at least 30 cm above the groundwater table.


For more information...


- <http://www.env.gov.bc.ca/epd/remediation/index.htm>



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Ministry of Environment

Land Remediation

Welcome



Pacific Place on the north shore of False Creek was once the industrial heart of Vancouver.

The Land Remediation Section administers the provisions for the investigation and remediation of contaminated sites in British Columbia under the *Environmental Management Act* and Contaminated Sites Regulation.

Our section focuses on the remediation of brownfields, orphan sites and complex, high risk contaminated sites, and facilitates the remediation of low and medium risk sites. We also manage the Site Registry, provide operational and procedural contaminated sites guidance, and administer the site screening process using site

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For more information...

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