Supplemental Guidance for Risk Assessments

This document provides Qualified Professionals guidance on the performance of human health and ecological risk assessments for contaminated sites in British Columbia (BC). It supplements existing provisions under the *Environmental Management Act* (the Act) and Contaminated Sites Regulation (the Regulation), and is subject to change as risk assessment methodology, protocols, policy and guidance is updated.

Screening Level Risk Assessment

Protocol 13, "Screening Level Risk Assessment" (SLRA) is intended to evaluate whether contamination at a specific site meets or exceeds benchmark screening criteria for human health and the environment. The SLRA process involves a simple default assessment of key exposure pathways and receptors.

Contaminated sites that meet SLRA benchmark screening criteria are considered to satisfy the Regulation's risk-based standards. No further risk assessment or remediation is required at such sites as long as site conditions do not change. Ongoing environmental monitoring to ensure maintenance of site conditions may be necessary at SLRA assessed sites.

The use of SLRA is subject to the following precluding conditions: 1) certain contaminated media (vapours, surface water, and sediments) may not be risk assessed in SLRA, 2) certain contaminants of concern (inorganic substances in acidic soil or groundwater, bioaccumulative substances, and mobile NAPL or DNAPL) cannot be evaluated by SLRA. Furthermore, Director's approval is required for use of SLRA at high risk sites.

Detailed Human Health Risk Assessment

General Guidance

Detailed human health risk assessments under the Act should include all applicable human receptors known, or reasonably inferred, to be present at a site, including uniquely sensitive or exposed human receptor subgroups such as:

a) susceptible age groups (e.g. children and the aged),
b) hypersensitive individuals (e.g. pregnant women, PICA children, etc.),
c) vulnerable individuals known to suffer compromised health impacts (e.g. chemical hypersensitivity, impaired pulmonary function, immunodeficiency, etc.), and
d) uniquely exposed individuals (e.g. subsistence consumers).

Further, provision of rationale for site-specific inclusion or exclusion of sensitive receptors is expected in all detailed human health risk assessments.

It is not required to include the assessment of acute/subchronic exposures for subsurface (utility, trench, and construction) workers in human health risk assessments for regulatory purposes. Worker health and safety is the responsibility of WorkSafeBC under the *Workers Compensation Act* and the Occupational Health and Safety Regulation. WorkSafeBC requirements must be met at contaminated sites. Note that assessment of operative chronic (>90 days) occupational exposure pathways do need to be included for subsurface workers in risk assessments for regulatory purposes.

Deterministic Risk Assessment

General Guidance

For human health deterministic risk assessment, the ministry recommends use of the following Health Canada, Federal Contaminated Site Risk Assessment in Canada, guidance:

- Part I: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA), Version 2.0 (2012),
- Part II: Health Canada Toxicological Reference Values (TRVs), Version 2.0 (2010),
- Part III: Guidance on Peer Review of Human Health Risk Assessments for Federal Contaminated Sites in Canada, Version 2.0 (2010),
- Part IV: Spreadsheet Tool for Human Health Preliminary Quantitative Risk Assessment (2009)(available on request from cs-sc@hc-sc.gc.ca),
- Part V: Guidance on Complex Human Health Detailed Quantitative Risk Assessment for Chemicals ($DQRA_{CHEM}$) (2010),
- Part VI: Guidance on Human Health Detailed Quantitative Radiological Risk Assessment for Chemicals ($DQRA_{RAD}$) (2010),
- Part VII: Guidance for Soil Vapour Intrusion Assessment at Contaminated Sites (2010),
- Supplemental Guidance on Human Health Risk for Country Foods (HHRA Foods) (2010), and
- Supplemental Guidance: Checklist for Peer Review of Detailed Human Health Risk Assessments (HHRA)(2010).

Furthermore, the ministry strongly recommends use of the critical human receptors, physiological parameters, exposure routes, exposure scenario assumptions and associated toxicological equations provided in Health Canada, Federal Contaminated Site Risk Assessment in Canada Part I: Guidance on Human Health Preliminary Quantitative Risk Assessment (PQRA), Version 2.0 (2012) guidance:

- Table 2. Problem Formulation Checklist,
- Table 3. Recommended Human Receptors and Their Characteristics for Preliminary Quantitative Risk Assessments,
- Table 4. Exposure Duration and Frequency Assumptions for Preliminary Quantitative Risk Assessments,
- Table 5. Recommended General Equations Dose Estimation,
- Table 7. Potency Equivalence Factors for Carcinogenic Polycyclic Aromatic Hydrocarbons, and
- Table 8.Toxic Equivalency Factors for Dioxins, Furans, and Certain Polychlorinated Biphenyls.

The ministry also recommends use of the absorption factors provided in Part II: Health Canada Toxicological Reference Values (TRVs), Version 2.0 (2010):

- Table 3. Dermal Relative Absorption Factors (RAF_{dermal}) of Selected Substances.

Other Health Canada documents and versions in addition to those listed above may be used if adequate rationale is provided.

In cases where ministry policy contradicts the guidance documents listed above, ministry policy takes precedence over the guidance. In these circumstances contact the ministry for further advice.

Exposure Parameters

For exposure parameters, equations and scenarios not contained in Health Canada guidance, the following U.S. Environmental Protection Agency (US EPA) guidance is recommended:

- Risk Assessment Guidance for Superfund (RAGS): Part A, Human Health Evaluation,
- Risk Assessment Guidance for Superfund (RAGS): Part B, Development of Risk-Based Preliminary Remediation Goals,
- Risk Assessment Guidance for Superfund (RAGS): Part C, Risk Evaluation of Remedial Alternatives,
- Risk Assessment Guidance for Superfund (RAGS): Part D,
- Risk Assessment Guidance for Superfund (RAGS): Part E, Supplemental Guidance for Dermal Risk Assessment,
- Risk Assessment Guidance for Superfund (RAGS): Part F, Supplemental Guidance for Inhalation Risk Assessment,
- Supplement to RAGS, Volume 1, Part A: Community Involvement in Superfund Risk Assessments (1999),
- Guidelines for Carcinogen Risk Assessment,
- Guidelines for Reproductive Toxicity Risk Assessment,
- Guidelines for Neurotoxicity Risk Assessment,
- Guidelines for Developmental Toxicity Risk Assessment,
- Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures,
- A Framework for Assessing Health Risk of Environmental Exposures to Children,
- Exposure Factors Handbook, and
- Child-Specific Exposure Factors Handbook.

Soil Vapour Assessment

For assessments concerned with determining risk and hazard associated with exposure to soil vapours, the ministry recommends use of the following protocol and guidance:

- Ministry of Environment. Protocol 22, "Application of Vapour Attenuation Factors to Characterize or Risk Manage Vapour Contamination",
- Ministry of Environment. Technical Guidance 4, "Vapour Investigation and Remediation",
- Health Canada. Federal Contaminated Sites Risk Assessment in Canada: Guidance for Soil Vapour Intrusion Assessment at Contaminated Sites, and
- Science Advisory Board for Contaminated Sites in British Columbia: Report on Screening Level Risk Assessment, SLRA Level 1 and SLRA Level 2.

Carcinogenic Classification

"Carcinogenic substance" means any chemical classified as carcinogenic in accordance with Protocol 30, "Determination of Carcinogenic Substances". Evaluation of both non-carcinogenic and carcinogenic effects related to exposure to contamination at a site is a necessary component of detailed human health risk assessment performed under the Act. Recognizing that a carcinogenic substance may elicit both carcinogenic and non-carcinogenic effects, both endpoints should be assessed in detailed human health risk assessments of such substances. However, it should be carefully considered which route(s) of exposure are relevant for each endpoint.

Source and Selection of Human Health Toxicity Reference Values

Toxicity Reference Values (TRVs) include: Acceptable Daily Intake (ADI), Tolerable Daily Intake (TDI), Reference Dose (RfD), Reference Concentration (RfC), Benchmark Dose (BMD), Minimum Risk Level (MRL), Cancer Slope Factor (CSF), and Cancer Unit Risk (UR), among others.

The ministry acknowledges that TRVs from Canadian agencies generally incorporate Canadian, as opposed to foreign, policy assumptions and values. Further, the ministry also recognizes that Canadian agency TRVs are widely used within Canada for public health and environmental decision making outside of the contaminated sites field, and that use of Canadian TRVs will generally provide for greater consistency between contaminated sites risk assessments and risk assessments conducted on food, water and air.
However, compared to TRVs from Canadian agencies, TRVs obtained from American environmental agencies are typically subject to more frequent peer review, revision and updating. In addition, US EPA TRVs rather than Canadian agency TRVs have been used by the ministry in setting most of the numerical standards of the Regulation.

In consideration of the above, the ministry recommends the following hierarchy of TRV sources:

1. BC Ministry of Environment derived and approved TRVs, including TRVs for:
   - Sodium ion,
   - Chloride ion, and
   - Lead.
2. US EPA: Integrated Risk Information System (IRIS) toxicity reference values in human health risk assessment, for all but the following:
   - Chlorinated dioxins and furans
   - PCBs

   For the above substances and classes of substances, the ministry recommends use of the most recently published or publicly available Health Canada TRVs.
3. Health Canada: Toxicological Reference Values (TRVs) and Chemical-Specific Factors, Version 2.0.
4. UN World Health Organization: International Programme on Chemical Safety, INCHEM.

Supplemental Agency Sources for Human Health TRVs

Where US EPA, Health Canada or World Health Organization TRVs are lacking for a substance, use of human health TRVs from the following supplemental sources may be considered:

- US Agency for Toxic Substances and Disease Registry: ATSDR Toxic Substances Portal,
- California Environmental Protection Agency: Toxic Criteria Database,
- Netherlands National Institute of Public Health and the Environment: Re-evaluation of Human Toxicological Maximum Permissible Risk Levels,
- US EPA: Regional Screening Levels,
- Oak Ridge National Laboratory: Risk Assessment Information System, and
- Other TRVs published by Canadian or US government agencies.

The ministry expects selection of a TRV from one of the supplemental agency sources listed above to be based on the following criteria:

a) existence of a comprehensive and contemporary published toxicological assessment on which the TRV is based,
b) the extent of supporting rationale and documentation pertaining to the scientific derivation of the TRV, and
c) the extent and rigor of scientific peer review provided for the TRV.

In addition, the ministry expects the rationale for selection of a supplemental TRV to be fully documented in any human health risk assessment report in which a supplemental TRV is used.

Supplemental TRVs may require adjustments in exposure assumptions before they can be used in the risk assessment of contaminated sites. Such adjustments should be documented

in any human health risk assessment report in which they have been used.

Use of De Novo Derived Human Health TRVs

In the case where no credible human health TRV can be found, a *de novo* TRV may be derived based on the scientific literature related to the toxicity of the substance.

The use of *de novo* TRVs in risk assessments submitted in support of contaminated sites applications under Protocol 6 must be approved by a Director prior to use.

Hazard Index and Additive Risks

A hazard index needs to be calculated for:

a) each substance over all operable exposure pathways (regardless of whether substance concentrations exceed the numerical standards in all exposure media), unless toxicity is pathway specific, and
b) each group of substances sharing a mechanism of toxicity and a target organ, including structurally related substances (e.g. carcinogenic PAHs, PCBs, PCDDs and PCDFs).

Probabilistic Risk Assessment

General Guidance

Probabilistic human health risk assessment methods can often provide better information on the variability and uncertainty of risks.

The ministry recommends the following US EPA risk assessment guidance be used for conducting probabilistic risk assessment:

- Risk Assessment Guidance for Superfund (RAGS) Volume III - Part A: Process for Conducting Probabilistic Risk Assessment (2001);
- Guiding Principles for Monte Carlo Analysis.

When probabilistic methods are used, the ministry expects the rationale for the selection of input parameter distributions and their applicability to BC to be adequately documented.

Policy Decisions

Dermal Exposure from Contaminated Water

Human health risk assessments of the dermal exposure pathway for receptors coming into contact with contaminated surface or groundwater should determine the log octanol-water coefficient (log Kow) value for all contaminants of concern present in the surface or groundwater which exceed the applicable numerical water standards in the Regulation. Log Kow values as published in Risk Assessment Guidance for Superfund (RAGS): Part E, Supplemental Guidance for Dermal Risk Assessment are recommended for use. If the log Kow for a contaminant of concern is less than 4.5, the dermal exposure pathway for receptors arising from contact with surface or groundwater with respect to that substance need not be evaluated. However, if the log Kow for a contaminant of concern is greater than or equal to 4.5, the dermal exposure pathway for contact with surface or groundwater with respect to that substance is expected to be evaluated in the human health risk assessment.

Future Drinking Water Use

If the future drinking water exposure pathway is considered incomplete or inoperative (e.g. a community water supply is present as an alternate drinking water source, all site impacted drinking water wells have been decommissioned, or the risk management approach for the site is ongoing prohibition of use of site impacted water as drinking water), risk calculations and associated risk estimates for the future drinking water pathway need not be included in the risk assessment for the site. However, where risk calculations and estimates are not provided the statement "future drinking water risks were not calculated" and full documentation of the

rationale by which the future drinking water pathway was determined to be incomplete or inoperative should be included in the human health risk assessment report.

Further requirements for determining the current and future groundwater use for drinking water are provided in Protocol 21, "Water Use Determination".

Detailed ecological risk assessment

General Guidance

The primary goal of ecological risk assessment and/or ecological risk management is to ensure the continued presence, or successful re-introduction, of a biologically diverse, functional, self-sustaining, and interdependent community or ecosystem as an essential component of the remediation of contaminated sites.

The following ministry protocols and technical guidance apply to the performance of ecological risk assessments for contaminated sites in BC:

- Protocol 1, "Recommended Guidance and Checklist for Tier 1 Ecological Risk Assessment of Contaminated Sites in British Columbia",
- Protocol 20, "Detailed Ecological Risk Assessment",
- Tier 1 "Ecological Risk Assessment Policy Decision Summary",
- Technical Guidance 15, "Concentration Limits for the Protection of Aquatic Receiving Environments",
- Technical Guidance 19, "Assessing and Managing Contaminated Sediments" , and
- Contaminated Sites Q&As

Portions of Tier 1 Guidance (Protocol 1) are considered outdated and not representative of current risk assessment practises in British Columbia. It is expected that Protocol 1 will be used in conjunction with, and in consideration of: the Tier 1 Ecological Risk Assessment Policy Decision Summary, Protocol 13 Screening Level Risk Assessment and Protocol 20 Detailed Ecological Risk Assessment requirements. Where inconsistencies exist between these later documents and Protocol 1, it is expected that precedence will be accorded to the most recent document.

The ministry also recommends consideration of the following guidance:

- Science Advisory Board for Contaminated Sites in British Columbia: Detailed Ecological Risk Assessment (DERA) in British Columbia Technical Guidance (2008).

Ecological Receptors

Despite the primary focus on assessing impacts and effects at the community or population in ecological risk assessment, assessment at the individual organism level may be required in some circumstances, e.g. when individuals of rare and endangered species protected under the Canadian Federal *Species at Risk Act* and BC *Wildlife Act* are present. In addition, the assessment of habitat considered critical to support rare and endangered species or individuals may be required.

Exposure Pathways

Exposure pathways to be evaluated in ecological risk assessment are usually limited to direct contact and/or ingestion. The inhalation pathway of exposure is not usually evaluated for ecological receptors, unless site-specific conditions indicate that this pathway can be considered the primary route of exposure for a population of a species, or if an individual of a rare and endangered species frequents or resides (e.g. burrows, hibernates, etc.) at the site.

Exposure Parameters

For relevant ecological exposure parameters, the ministry recommends use of the following sources:

- US EPA: Wildlife Exposure Factors Handbook,
- California Environmental Protection Agency: CalEcotox Database,
- US Geological Survey: Wildlife and Contaminants Online,

- Environment Canada: FCSAP Ecological Risk Assessment Guidance, Standardization of Wildlife Receptor Characteristics (March 2012), and
- California Department of Toxic Substances Control: Guidance for Ecological Risk Assessments (EcoNOTES).

In addition, relevant information from other jurisdictions and pertinent peer reviewed scientific literature may be used to supplement the above sources of ecological exposure parameters. In such cases, the rationale for the selection of supplemental ecological exposure parameters is expected to be included in the ecological risk assessment report.

Ecotoxicity Profiles

For detailed ecological risk assessment, toxicity profiles are commonly provided for each contaminant evaluated. At a minimum, such ecological toxicity profiles should include the following information:

a) toxic effects expected from exposure,
b) the sensitivities of the different receptor groups exposed, and
c) the range of toxicities reported in the scientific literature for similar species to those present at the site under assessment.

These toxicity profiles form the basis for the selection of appropriate ecological benchmarks to be used in the ecotoxicity assessment component of the ecological risk assessment.

Ecological Benchmarks – EcoTRVs

For the purpose of deriving Hazard Quotients (HQs), the Estimated Environmental Concentration (EEC) should be compared to Ecological Toxicity Reference Values (EcoTRVs). The ministry supports the use of EcoTRVs based on contaminant intake, dose, tissue residues, and concentrations in environmental media to which an organism is exposed.

The ministry prefers the use of effects levels such as: Effective Dose, Lethal Dose, Effective Concentration or Lethal Concentration, for x percent of exposed organisms (i.e. EDx, LDx, ECx or LCx values, respectively) for the estimation of risks to ecological receptors at the population/species level. The ministry does not recommend the use of: No Observed (Adverse) Effect Levels (NO(A)ELs), No Observed (Adverse) Effect Concentrations (NO(A)ECs), Lowest Observed (Adverse) Effect Levels (LO(A)ELs), or Lowest Observed (Adverse) Effect Concentrations (LO(A)ECs) and similarly derived benchmarks that are dependent on experimental design, unless no alternative benchmark can be found for a site.

Ecological risks are acceptable if the effects levels at the site are less than or equal to the specified effects level for the particular land use applicable at the site, as stated in the Tier 1 "Ecological Risk Assessment Policy Decision Summary".

The types of ecological effect endpoints that need to be addressed at the population level for non-endangered species include acute (e.g., toxicity and lethality) and chronic processes (e.g., reproductive, growth and maintenance, and critical developmental). Carcinogenicity is not usually selected as a chronic ecological effect endpoint unless the rate of cancer incidence is sufficient to threaten survival at the population level. If a particular organism warrants protection at the level of the individual (e.g., an individual of a rare and endangered species) an appropriate chronic effect endpoint and effect level for the individual, rather than the population, should be considered, if data is available and adequate for assessment.

Source and Selection of EcoTRVs

The ministry recommends preferential use of the US EPA ecological soil screening levels (EcoSSLs) as terrestrial EcoTRVs, and use of

the BC Ministry of Environment Water Quality Guidelines (i.e. the selected TRV used for guideline derivation as specified in the Technical Appendix for a substance) as aquatic EcoTRVs.

Supplemental Agency Sources for Eco TRVs

Where EcoTRVs from the preferred sources are lacking for a substance, use of EcoTRVs from the following supplemental sources may be considered:

- US EPA: ECOTOX Database,
- Oak Ridge National Laboratory: The Risk Assessment Information System (RAIS), Ecological Benchmark Tool,
- California Environmental Protection Agency: CalEcotox Database,
- US EPA, Region 9: Biological Technical Assistance Group (BTAG) Recommended Toxicity Reference Values for Mammals,
- US Geological Survey: Wildlife and Contaminants Online,
- Centre d'Expertise en Analyse Environnementale du Québec: Valeurs de Référence pur les Récepteurs Terrestres,
- Canadian Council of Ministers of the Environment (CCME): Scientific Criteria Documents, and
- CCME: Canadian Tissue Residue Guidelines for the Protection of Wildlife Consumers of Aquatic Biota.

The ministry expects the most stringent of the applicable EcoTRVs from the supplemental agency sources listed above to be used in the ecological risk assessment unless it can be shown that an alternate value is more appropriate based on:

a) the existence of a more comprehensive and contemporary published scientific assessment,
b) enhanced relevance (study design, exposure route, etc.) to the site,
c) enhanced scientific credibility, or
d) greater extent of supporting rationale and documentation.

Selected EcoTRVs should be accompanied by a citation and documentation of the ecological effect endpoint upon which the value is based.

Use of De Novo Derived EcoTRVs

Where no credible ecological benchmark or EcoTRV can be found, a *de novo* EcoTRV may be derived based on:

a) the scientific literature related to the ecotoxicity of the substance, or
b) ecotoxicological experimental data obtained for the substance on a site specific basis (e.g., *in-situ* bioassay data obtained for a site).

The ministry recommends consideration of the following guidance:

- US EPA: Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs), Eco-SSL Standard Operating Procedure #6: Derivation of Wildlife Toxicity Reference Value (TRV) (June 2007), and
- Environment Canada: FCSAP Supplemental Guidance for Ecological Risk Assessment, Selection or Development of Site-Specific Toxicity Reference Values (June 2010).

The ministry discourages the use of arbitrary uncertainty factors (UFs) in *de novo* EcoTRV derivation. However, if data are limited and/or extrapolations are required among taxonomic groups, incorporation of an UF may be warranted.

The use of *de novo* EcoTRVs in risk assessments submitted in support of contaminated sites applications under Protocol 6 must be approved by a Director prior to use.

Hazard Index

A hazard index needs to be calculated for each substance that exceeds a numerical standard in one or more media at the site including all exposure media (regardless of whether

substance concentrations exceed the numerical standards in all exposure media).

Toxicity Testing

The ministry recommends toxicity test methods established by the following agencies for use in ecological risk assessment:

- BC Ministry of Environment: British Columbia Environmental Laboratory Manual (Part F),
- Environment Canada: Biological Test Method Series,
- US EPA: Whole Effluent Toxicity – Methods for Measuring Acute Toxicity to Freshwater and Marine Organisms,
- US EPA, OCSPP Harmonized Test Guidelines,
- American Society for Testing and Materials (ATSM): Environmental Toxicology Standards,
- Organization for Economic Cooperation and Development (OECD): OECD Guidelines for the Testing of Chemicals, Section 2: Effects on Biotic Systems, and
- International Organization for Standardization (ISO): TC 147/SC 5 – Biological Methods.

In selecting appropriate toxicity tests from the above mentioned agencies, the ministry expects the following criteria to be considered:

a) relevance of the test species to species present at the site,
b) sensitivity of the test species to the contaminant(s) of concern,
c) relevance of the test exposure duration,
d) appropriateness of the test effect endpoints to the mechanism of toxicity of the contaminant(s) of concern, and
e) the extent and representativeness of site phylogenetic diversity when batteries of toxicity tests are used.

In addition to the above agencies' ecological toxicity tests, the ministry also recommends consideration of the toxicity tests provided in the following guidance:

- Science Advisory Board for Contaminated Sites in British Columbia: Report on: Detailed Ecological Risk Assessment (DERA) in British Columbia Technical Guidance. (September 2008),
- Environment Canada: FCSAP Supplemental Guidance for Ecological Risk Assessment. Toxicity Test Selection and Interpretation. (March 2010), and
- SETAC: Summary of a SETAC Technical Workshop Porewater Toxicity Testing: Biological, Chemical and Ecological Considerations with a Review of Methods and Applications, and Recommendations for Future Areas of Research. (March 2000).

Weight-of-Evidence

The ministry recommends the following guidance related to the weight-of-evidence approach in ecological risk assessment:

- Science Advisory Board for Contaminated Sites in British Columbia: Guidance for a Weight of Evidence Approach in Conducting Detailed Ecological Risk Assessments (DERA) in British Columbia (2010).

Requirements for Human Health and Ecological Risk Assessment Reports

Procedure 10, "Requirements for Service Application Resubmissions, Withdrawals and Amendments" provides direction regarding expectations for human health and ecological risk assessment reports submitted for review under the Regulation. It is recommended that this procedure be followed to prevent errors and omissions that may deny or delay approval of applications for contaminated sites legal instruments.

Performance Verification Plans

Administrative Guidance 14, "Performance Verification Plans, Contingency Plans and Operations and Maintenance Plans" describes the plans required to support risk-based remediation involving risk controls, when plans are required, and how they should be prepared, implemented and used.

A performance verification plan must be included in applications for contaminated sites legal instruments that rely on risk controls to meet risk-based standards (based on a screening level or detailed risk assessment).

Approval under Protocol 6

Protocol 6,"Eligibility of Applications for Review by Approved Professionals", requires Director's approval of certain risk assessment methodologies before a recommendation by an Approved Professional for a risk-based contaminated sites legal instrument can be made. The ministry's application form and instructions for obtaining a Director`s approval can be found on the ministry`s Site Remediation website.

For more information, please direct inquiries to site@gov.bc.ca.

Revision history

Approved Date	Effective Date	Document Version	Notes
July, 2007	July 9, 2007	1.0	Issued - new Technical Guidance 7
July, 2012	July 16, 2012	2.0	Revised – references added
October, 2012	October, 2012	3.0	Revised – broken links fixed
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XX, 2017	XX DD, 2017	5.0	Draft for comment Revised – Updated for stage 10 (Omnibus) amendment