

## Terms of Reference BLIER Sector & Equipment Sub-Groups

### **1. OBJECTIVE**

Develop the Base Level Industrial Emission Requirements (BLIER) for air pollutants from a specific industrial sector.

The BLIERs are intended to be quantifiable requirements that can be imposed by regulations or permits on existing and new facilities. They should be quantitative performance standards, and may be developed on an equipment basis and then rolled up to a facility level. BLIERs may include equipment standards, process standards, facility standards, fuel-based standards or a combination.

The stringency of base-level requirements should match what leading jurisdictions – inside or outside Canada – require for comparable industrial sources in attainment areas (areas where air quality standards are being met), adjusted where necessary for Canadian circumstances. A BLIER should represent a good base level of environmental performance which would apply to every facility in the sector within a defined time period, ensuring an improvement in industry performance over time and a level playing field for facilities across Canada. BLIERs must be better than the *status quo* or the lowest common denominator in the sector, and are expected to generate significant future emission reductions and environmental improvement over time.

### **2. SECTOR SUB-GROUP MEMBERS**

The BLIER recommendations are to be developed by a balanced multi-stakeholder working group of manageable size, specific to a sector or type of equipment, known as a Sub-group. The Sub-group will include stakeholders from industry, federal and provincial governments, and health and/or environmental non-governmental organizations.

The chair/co-chair for each Sub-group will be a representative of Environment Canada or a province. If a Sub-group wishes to operate with a co-chair, this position can be chosen from any of the members. EC will provide secretariat support for any Sector Sub-group that it chairs or co-chairs.

### **3. SUB-GROUP DELIVERABLES**

**3.1 By August 25, 2009**, report to the BLIERs-What Working Group the chairs and membership of the Sub-group.

**3.2 By September 18, 2009** recommend to the BLIERs-What Working Group the list of criteria air contaminants (CACs) for which a BLIER will be developed for the sector and provide a rationale for the recommendation.

- The Sub-group is expected to consider the CACs identified in the *Turning the Corner* proposal and the preliminary recommendations of EC.

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- Considerations for recommending a change in the list of air pollutants for the sector should include: the contribution of that sector to emissions of the pollutant; data quality and ability to quantify emissions; the ability to reduce emissions, and the ability to measure any emissions reduction.
- Specify for each CAC selected whether a quantitative or qualitative performance requirement will be developed, and the sources to which the requirements would apply (e.g. equipment, fugitive, etc.) Qualitative performance requirements should be the exception, proposed where quantification is not feasible but the source makes a significant contribution to the sector's emissions.
- For CACs for which no performance requirement is proposed, a short justification should be provided along with recommendations regarding any work which should be initiated in support of developing a future Blier.

Sub-groups should also advise the Bliers-What Working Group at an early stage of any equipment-based standards that may be applicable to other sectors. This will allow for common equipment standards to be developed and/or consideration of whether the actual level and timing of equipment standards would vary across sectors.

**3.3 By October 30, 2009** develop, justify and recommend to the Bliers-What Working Group a Blier for each of the CACs identified above. (A Sub-group which reaches early agreement on the Blier recommendation should document it and report to the Working Group without delay.)

Along with the proposed Bliers, the Sub-group's report should include:

- the rationale for the proposed standard including information on the key factors considered (see page 3) in setting the Blier, including expected emission reductions and cost; and
- a description of how the standard meets the objective of a Blier, including how it compares to what leading jurisdictions require for comparable industrial sources in attainment areas, adjusted for Canadian circumstances.

In all cases, where key factors for consideration, analyses or calculations are *not* provided, the Sub-group is to give the rationale for the exclusion.

It is recognized that the level of information available to sectors within the short time-frame varies. Sub-groups should try to provide as detailed an assessment as possible given current constraints. Where necessary, Sub-groups can provide preliminary or high level or approximate analysis. In such cases, the Sub-group should also indicate what further steps would be required to complete a full evaluation.

Unless there are extenuating circumstances, the Bliers are expected to come into effect in the 2012-2015 period. Where there are extenuating circumstances, the Sub-group should describe them and identify what flexibility and timing allowances may be required to address them.

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If another approach (e.g., Code of Practice for fugitive emissions) is recommended, the Sub-group is to document the reasons why quantitative standards are not currently possible, the benefits of the preferred approach, how compliance would be enforced, and the expected emission reductions. The Sub-group should also outline, in general, what steps would need to be taken to develop a quantitative standard in the future.

### **4. INFORMATION TO CONSIDER**

The Comprehensive Air Management System (CAMS) document provides the overarching design principles to be used by Sub-groups. Relevant excerpts from the CAMS document are attached for reference. The BLIERs-What Working Group will provide more detailed guidance as needed as each Sub-group identifies issues to be resolved.

Each Sub-group is expected to review the preliminary Environment Canada recommendations for substances and targets developed in the validation work that was done for the *Turning the Corner* process in 2007/2008. In addition, each Sub-group should identify and consider other sources of relevant information, such as:

- Information on what leading jurisdictions – inside or outside Canada – require for comparable industrial sources in attainment areas, e.g., regulations, permits or other performance requirements.
- Information published by the Canadian Council of Ministers of the Environment (e.g., Codes of Practice, Guidelines, Multi-pollutant Emissions Reduction Strategies)
- Other guidance (e.g., Best Available Retrofit Technology from the US, fuel standards) which could be applied or adjusted to Canadian circumstances.
- Emissions and production data, technical information on process and control technologies, economic information, studies and analysis available from industry, governments or other sources.

In setting the BLIER, the Sub-group may build on work already completed for other frameworks, including the validation exercise for *Turning the Corner*, and is to consider the factors outlined below to the extent possible with information available, and summarize them in their report to the BLIERs-What Working Group:

- The emissions performance levels that comparable facilities and equipment are required to achieve in attainment areas in other jurisdictions.
- Adjustments to benchmark performance requirements to address Canadian circumstances, such as the age and technology of facilities, the characteristics and availability of feed-stocks and fuels for the sector, and any other similar factors the Sub-group can document.
- Expected emission reductions for the sector, broken down by province.
- Analysis of non-air-quality environmental impacts, including co-benefits or conflicts of potential standards, including those involving GHG emissions (e.g., the estimated co- or dis-benefits of the recommended BLIERs for GHG emissions in units of tonnes CO<sub>2</sub>eq).
- Sources' remaining useful life and capital cycle.

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- The number of facilities in compliance with the proposed Blier versus the number that would need to take action to meet it (if relevant, flag the likelihood of plant closure(s)).
- The estimated costs to the sector of implementing the proposed BLIERs and any other economic implications of the BLIERs for the sector, including any regional differences in cost, impact or achievability which might result from application of the proposed BLIERs and which are evident from information available.
- The estimated cost per tonne of pollutant reduced associated with the proposed BLIERs, on a national or overall basis (and by province where they differ from the national value, if possible).
- The reporting, enforcement and compliance mechanisms required for the Blier.

BLIERs within a sector may be different for existing and new facilities. BLIERs for new facilities are particularly important in sectors which anticipate significant growth.

BLIERs will be set with a reasonable expectation that retrofits and additional abatement technology may be required for existing plants. It is expected that some facilities in a sector may *already* meet a Blier performance level. It is also understood that there may be cases where it may not be technically or economically feasible for an individual facility to meet the Blier, such that the plant may have to close.

- The Sub-group may consider and provide recommendations for managing extenuating circumstances where flexibility may be required for existing facilities to meet the Blier. Where longer timeframes are proposed, the environmental and economic justification is to be documented in detail.

It is important to be mindful that BLIERs are one part of a larger CAMS system which includes elements aimed at addressing regional air quality issues. BLIERs, alone, are not intended to achieve all emissions reductions which will be needed to bring non-attainment areas into attainment of the National Air Quality Standard.

### **5. OPERATING PRINCIPLES**

The Sub-group will work towards consensus, but does not need to reach consensus on all points. Points of disagreement shall be documented and presented to the BLIERs-What Working Group for discussion and feedback.

Although closely related to the work of this group, the issue of regulatory and compliance mechanisms are being dealt with by other working groups.

### **6. TIMEFRAME AND LEVEL OF DOCUMENTATION FOR DELIVERABLES**

Sub-groups are expected to complete their tasks by October 30, 2009.

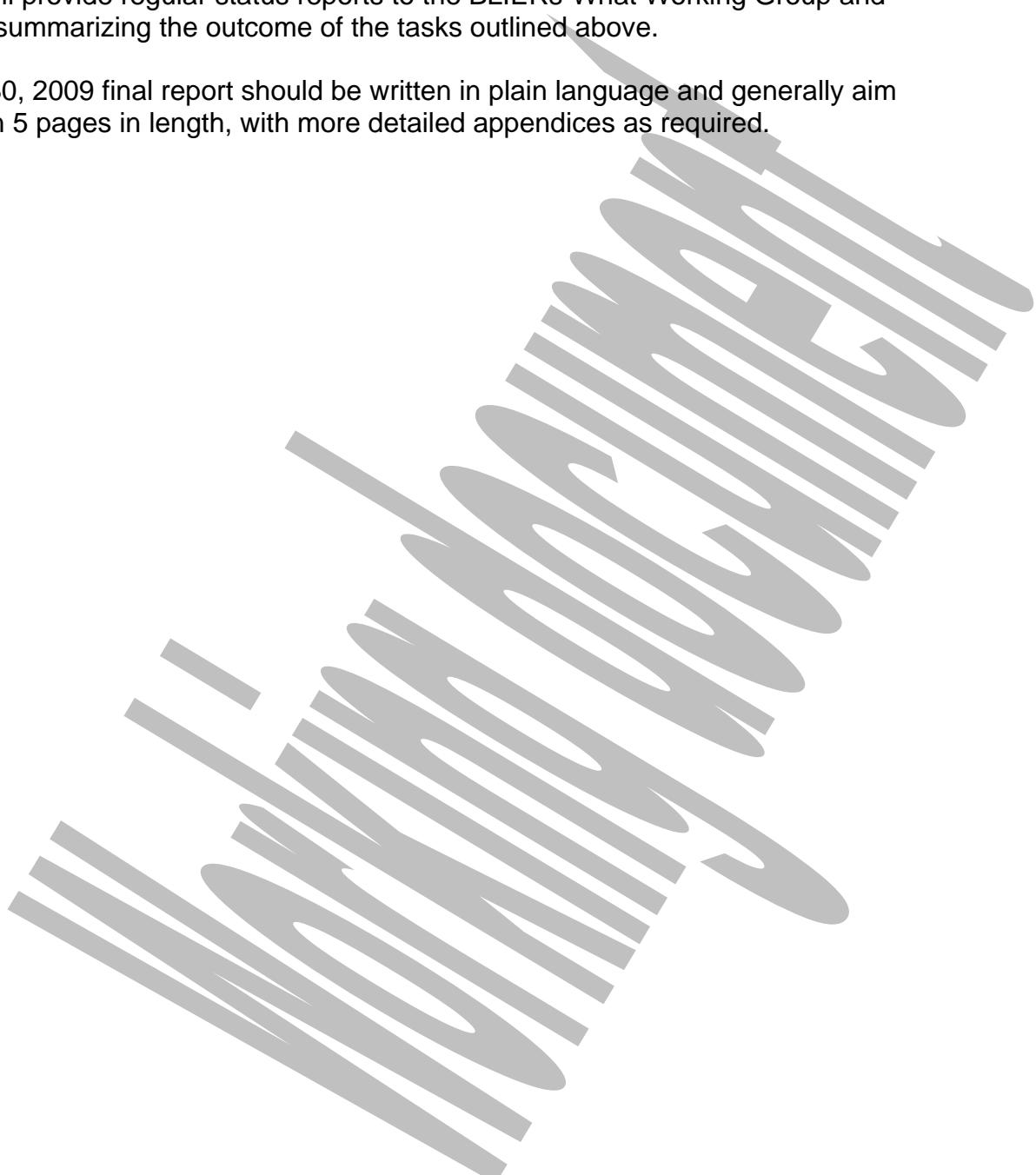
Sub-groups will report their chair or co-chairs and membership to the BLIERs-What Working Group by August 25, 2009.

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Sub-groups will provide an initial report to the BLIERs-What Working Group by September 18 with a recommendation on the air pollutants for which BLIERs will be set.

Sub-groups will provide regular status reports to the BLIERs-What Working Group and a final report, summarizing the outcome of the tasks outlined above.

The October 30, 2009 final report should be written in plain language and generally aim to be less than 5 pages in length, with more detailed appendices as required.



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Excerpts from CAMS Overview paper, January 14, 2009.

### Base-level industrial emissions requirements

*This system assumes that all significant industrial sources of emissions everywhere in Canada, regardless of the air quality where facilities are located, should be expected to meet a good, base-level of environmental performance. As part of a plan to address all sources of emissions where air quality in an air zone is under pressure, more stringent requirements than base-level requirements may be imposed on industrial facilities in that zone.*

*These base level requirements will initially focus on Criteria Air Contaminants (SO<sub>2</sub>, NO<sub>x</sub>, VOC, PM, NH<sub>3</sub>). As a general principle, these base-level requirements should match what leading jurisdictions – inside or outside Canada - require for comparable industrial sources in attainment areas (areas where air quality standards are being met), adjusted where necessary for Canadian circumstances.*

*As much as possible, these base-level requirements will be quantitative equipment-based performance standards. They will be applied through emission requirements imposed by regulation or permits on existing and new facilities. The actual level and timing of the requirements may vary for each sector.*

*All eligible new facilities, beyond 2015, will be required to meet the base-level requirements from the start of their operation. All existing facilities will meet the base-level requirements by 2015 except for extenuating circumstances where flexibility mechanisms and timing allowances may be available. Factors such as capital stock turnover rates will be considered in the determination of levels and timing of base-level requirements for existing facilities.*

*These base-level performance requirements will be regularly reviewed with the expectation that the requirements will become more stringent over time as technology advances, ensuring continuous improvement and emission reductions. Over time, the requirements for existing facilities will move toward the requirements for new facilities.*

*Like the National Ambient Air Quality Standards, these base-level requirements for sources will be developed through a time limited, federally-led consensus process by the federal, provincial and territorial governments and stakeholders. Where applicable and appropriate, the development process will build on validated requirements from the federal “Turning the Corner” process or will adopt current frameworks that will provide significant future emission reductions. The development process will include collective consideration of the proposed base-level requirements by Canadian Council of Ministers of the Environment (CCME) Ministers. If consensus is not reached within a pre-agreed time, the federal government will determine the requirements within the criteria for base-level requirements in this system.*

*The base-level requirements will be set under Section 54 or 55 of the Canadian Environmental Protection Act, and applied to individual facilities and enforced by regulation or other initiatives*

**Criteria Air Contaminants:**  
Air issues such as smog and acid rain result from the presence of, and interactions between, a group of pollutants known as Criteria Air Contaminants and some related pollutants.

Criteria Air Contaminants refer to a group of pollutants that include SO<sub>x</sub>, NO<sub>x</sub>, PM, VOCs, CO and NH<sub>3</sub>. In addition, ground-level ozone and secondary particulate matter are often referred to as CACs because both PM are by-products of chemical reactions between the CACs.

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*by the best-situated jurisdiction, drawing on existing expertise and capacity. In most cases this will be provinces, but in some instances the federal government may be the regulator of first instance, (e.g. for federal lands in the territories).*

Also:

### Base-level requirements

*This proposal requires strong assurance for all Canadians that the base-level industrial emission requirements will be effectively applied across Canada to provide a good standard of industrial environmental performance and to ensure a level playing field for industry, provinces and territories. Provinces and territories (with some possible exceptions, e.g. lands or facilities under federal jurisdiction) will regulate the base-level industrial requirements.*

*The National Air Quality Accord establishing this system and outlining the jurisdictions' roles and commitments will enshrine the mutual commitment of governments to regulate and enforce these base-level requirements in their areas of jurisdiction. Between the two orders of government, the base-level requirements will be applied by regulation to eligible facilities in all parts of Canada. To provide further assurance, the federal government will have the responsibility to fill in any gaps in the planned regulatory application of the base-level requirements as demonstrated by regulations in place and emissions reporting by jurisdictions.*

*For this regulatory assurance, the focus will be on quantifiable requirements as much as possible, and transparent reporting of emissions from facilities will be required. If needed to enable the federal government to provide this additional regulatory assurance, new federal legislation could be adopted.*