Guidance on Technical Land-use Planning Advice under the COMAH Regulations

Background to the Guidance

The Seveso Directive [2012/18/EU] requires that the objectives of preventing major accidents and limiting their consequences should be taken into account in land-use policy and this has been implemented by the COMAH Regulations of 2015.

The objectives are to be achieved through controls on:

- the siting and development of new establishments;
- modifications to existing establishments;
- development in the vicinity of establishments.

Publicly accessible technical advice on the off-site risk from an establishment must be available to the Planning Authority when decisions are being made in the formal planning approval system. The Health & Safety Authority is the Central Competent Authority - 'CCA' for the Seveso Directive in Ireland. The provision of technical land-use advice to a Planning Authority is referred to as *Technical Land-Use Planning Advice* or '*TLUP*'.

The proposed new TLUP Guidance addresses the policy and practice of the HSA in the provision of technical land-use planning advice to Planning Authorities for developments within the protective Consultation Distances ('CD') around qualifying establishments.

Basis for New Guidance

The updated Guidance reflects the relevant changes in the *COMAH Regulations of 2015* (which in turn reflect the changes in the 2012 *Seveso Directive*) in relation to LUP, significant modifications at COMAH establishments and on related public information and consultation provisions. Guidance on 'significant modifications' has already been dealt with in 2019 Guidance and the newly proposed TLUP Guidance reflects this advice.

The provision of generic advice for all establishments in accordance with the TLUP will assist planners and developers drawing up future development plans around COMAH establishments.

The updated Guidance also incorporates publications and new technical developments since original guidance was published in 2010.

Technical Developments in the Revised Guidance

The revised Guidance has been re-titled and streamlined. Emphasis is placed on a more rigorous and consistent risk-based approach across all sectors.

The more significant changes are:

- Clear guidance is given for major accident scenarios that are to be considered relevant to TLUP, their frequencies of occurrence and the modelling parameters to be used. The Guidance consistently and closely follows the approach set out in the event trees in the Purple Book[1] and BEVI[2] (which describe a risk-based fatality approach for COMAH establishments and which forms the basis for the system of risk assessment and ultimately, land-use planning in the Netherlands).
- Regulation 24 - the land-use planning regulation and the link to planning and development, is explained (on Page 6).
- New sections have been added on the LNG, Recovered Natural Gas (RNG) and Distillery/Warehouse sectors– and future new sections can be slotted in to the framework as new sectors emerge (for example, hydrogen generation for automotive fueling may be a future candidate).
- Section 1.9 addresses the way the CCA will set a risk-based Consultation Distance and the approach that will be taken if the CD risk level does not extend beyond the site boundary.
- Section 3.6 sets out a single approach to developing the risk zones for fertilizer establishments (therefore appendix 5 from the existing guidance is not carried forward).
- Flammable liquid categories now follow the CLP Regulation categories; related ignition probabilities are specified in Section 2.9.
- Section 2.5.5 specifies ambient modelling temperatures.
- Section 2.8 Surface Emissive Powers (E_{max}) of pool fires have been specified for the more common substances.

---

[1] *TNO, 'Guideline for Quantitative Risk Assessment', CPR 18E, 1999 (Purple Book)*

[2] *BEVI (2009): Reference Manual Bevi Risk Assessments, versions 3.2. RIVM (Bevi 3.2)*

- Section 2.5.1. includes an updated and shorter list of Probit equations (for converting toxic dose to percentage lethality)
- Section 3.9 sets out a universal approach for scenarios involving pressurized gases in drums and cylinders, removing the special approach for chlorine drum stores.
- Section 1.7 sets out an approach for risk-based environmental assessment (where necessary) and also addresses NATECH accidents (a NATECH accident is a technological accident triggered by a natural event, such as a flood, storm, lightning, landslide etc.). References to information sources for flood mapping and historical rainfall have also been included, as has historic storm gust data. For the latter, a multiplier of 1.2 is suggested to account for climate change effects. Appendix 4 ('LUP and the Environment') from the previous guidance has consequently not been brought forward.
- Section 1.6 elaborates on a revised approach to societal risk through the use of Expectation Value ('EV') and FN curves, removing several different risk indices that were in the original guidance and replacing them with a single approach that will ensure a clearer understanding and greater consistency, congruent with the approach described in the *Significant Modifications Guidance*. Where the EV is above 10,000, the technical advice will now always be 'advises against'. Two notes have been added to Appendix 2 to clarify application for developments straddling zones or developments of more than one development type.
- Section 1.4 specifically addresses the linkage to the *Significant Modifications Guidance*.
- Section 1.8 explains the basis for setting the Public Information Zone (replacing the term 'specified area' and withdrawing previous guidance on this).

Nature of the Advice to Planning Authorities

The risk-based technical LUP advice methodology, set out in the Guidance, will be used to develop the *ad hoc* technical LUP advice required by the Directive as well as the development of generic LUP zones around all establishments covered by the Directive.

The approach is intended to be followed as the basis for LUP advice. Only in exceptional circumstances will it be deviated from and then only at the discretion of the Authority.

While the technical methodology for deriving the land-use risk zones (i.e. where the lines are drawn) has been improved, the actual technical LUP advice that will be provided to Planning Authorities remains largely unchanged. The risk zone fatality criteria remain the same and the developmental advice likewise

(Appendix 2) but has also been newly reformatted by zone, to make it more accessible and easier to interpret (Appendix 3).

There is one significant change: for new establishments, the 1 x 10^{-6} per year fatality risk contour is now referenced as the 'maximum tolerable risk at a public location' whereas in the previous version the reference was 'to the nearest residential type property'. This is relaxed to 5 x 10^{-6} per year, where the neighbouring developments are industrial in nature and is now phrased as 'the maximum risk to an offsite working population'. These formulations are considered to better reflect the objectives of the Directive and to be less ambiguous.

Charges for Services

Under the *COMAH Regulations 2015 (Regulation 27(1)(c))*, provision of generic technical LUP advice by the CCA is a chargeable activity to COMAH operators (Information on chargeable activities). The proposed Guidance provides a robust basis for the development of chargeable TLUP. Where an external body is used to draw up the generic LUP zones, the approach set out in this Guidance will be followed and form the basis for charging for such services.

Public Consultation Process

To inform the development of this revised Guidance, the Authority held Expert Workshops where an initial draft of the guidance was outlined. The draft for public consultation reflects the discussions, feedback and views expressed (to the extent possible) at the workshops.

The Authority welcomes submissions on both the technical and planning elements of the Guidance.

Public Consultation Process

This public consultation on the Guidance is for a period of 3 months.

The closing date for submissions is March 19, 2021.

END