Technological risk prevention plan (PPRT)

Acting together to control risks
The technological risk prevention plan (PPRT) is a new tool for managing land-use planning in the vicinity of industrial establishments. Established in France by the 2003 so called ‘risk law’, the PPRT applies to all establishments classified as SEVESO A1.

Some useful vocabulary to know it all

“Aléa” Probability that a dangerous phenomenon creates effects at a given intensity, and over a determined period of time at a given point of the territory. (French word, untranslated because of its specificity).

Effects These are the three possible effects of a dangerous phenomenon: toxic (gas), thermal (fire) and overpressure (explosion). They are evaluated according to four thresholds: with increasing intensity: indirect, irreversible (SEI), lethal (SEL) and catastrophic (SEI).

Stakes These depend on the level of infrastructure present in the region: dwellings and commercial properties, public buildings (PBP), transport infrastructures, outdoor public spaces, public utilities (electricity and gas supply terminals, telecommunications aera) and private properties (land, houses and buildings).

The aim of the PPRT is to protect the population. It is a tool which, beyond the industrial establishments themselves, works to reduce risk at source. The PPRT is intended to: 1) define – through dialogue with relevant parties – regulations for land use which are compatible with the classified installation’s activity, local development projects and the interests of local residents.

Measures adapted to...

...remedy the situation inherited from the past

Protective measures • protective works for the buildings, not exceeding 10% of the property value

Real estate measures

Expropriation • the owner is deprived of his property which is bought by the local authorities • a declaration of public necessity must be made at the request of the local authorities

Requisition • an owner wishing to leave his property requests the local authorities to buy it by formal notice • this right is established after a deliberation by the relevant local authorities

Construction and land-use planning measures • ban on all new construction, operation or new authorisation with specific prescriptions • these measures aim at limiting the type of activity and reducing the vulnerability of the constructions

Restrictions on use • these restrictions aim at limiting the number of people using facilities (roads, public utilities, etc.) that are the most exposed to danger

...prepare the future

Pre-emption

Well-defined zones and areas

The PPRT consists in assessing and prioritising the risk level associated with the activity of the classified installation on the impacted territory. These levels enable the definition of zones, each having its own land-use planning and construction rules. For the highest levels, areas for possible expropriation and/or requisition may also be suggested by the PPRT (see below).

**Regulated zones**

<table>
<thead>
<tr>
<th>Type of construction</th>
<th>Future land-use planning and construction measures</th>
<th>Possible real-estate measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark red</td>
<td>Ban on new construction</td>
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<tr>
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<td>Ban on new construction but possibility to extend existing installations (if property protected)</td>
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</tr>
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<td>New construction possible, depending on limitations on use or protection measures</td>
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**Financed measures**

The financing of real estate measures [expropriation and requisition] is subject to an agreement between the local authorities, the state and the operator. Construction measures are on the property’s owner charge, but can be financed up to 10% of the property value thanks to a tax credit (e.g. anti-splinter films on windows).

Role of dialogue and partnership

To be accepted by everyone and show its long-term commitment, the PPRT brings many associated persons together [see diagram opposite]. The Prefect initiates and runs the project. Under the Prefect’s authority, the classified installations inspection body (DRIRE or STICR) and the Departmental Directorate for Public Works (DDE), organise the debate. The PPRT also relies on partnership [operational working group made up of associated persons] and consultation (public meetings, poster campaigns, etc.). The Local Information and Dialogue Committee (CILC), which is both a partner and an example of dialogue, plays an important role in the elaboration of the PPRT.

The PPRT in practice

The launch of the PPRT procedure starts with the first meeting of the CILC. This meeting aims at describing the establishment which are the source of the risk and to set out the objectives of the PPRT.

First step: mapping of the ‘aléa’...

The safety report supplied by the operator lists all the possible dangerous phenomena, their probability and the forecast intensity of their effects. Once these data have been combined, the “technological aléa” is calculated by the classified installations inspection body (DRIRE or STICR) for each point of the territory and each type of effect.

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Analysis of stakes

This involves listing stakes present on the territory (see opposite). This work is carried out by the DDE, in close collaboration with the relevant local authorities, their technical services and the various local partners.

How the PPRT works

Safety report (EDD)

Population of the “aléa”

Useful to know

PPRT methodology guide

• Guide méthodologique PPRT.

PPRT regulations and methodology

• French Environment Code: Art. L.515-15 to L515-24

• PPRT decree of September 7, 2005

• Memo of October 3, 2005

• Guide méthodologique PPRT [PPRT methodology guide].

The PPRT decides the PPRT publication and approval

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Development of the PPRT strategy
Cross-referencing “aléa” and stakes enables a preliminary risk map to be drawn up of zones and areas which may be subject to regulation (called rough area zoning map) and to begin possible supplementary investigations (evaluating at-risk properties, vulnerability assessment). These two elements are the basis of the PPRT strategy and constitute a key stage in the process.

The objective of this stage is two-fold:
• to introduce and explain the measures which are inevitable as well as possible options depending on the local context;
• to enter into an exchange with the parties involved in order to set out the PPRT measures, taking account of the particular nature of the site, local development projects, financial constraints or additional safety measures advised by the operator.

The strategy stage is the time to evaluate the likely budget (between the operator, the state and the local authority), needed to establish areas of possible expropriation or relinquishment.

PPRT project finalisation
This involves three key elements:
• the regulatory zoning map shows the zones and areas of the territory to be covered by the strategy;
• the PPRT regulations set out specific measures for each zone defined by the regulatory zoning map;
• the introductory memo explains and justifies the project’s approach and leads to the choice of regulatory zoning map and regulations.

PPRT approval
The PPRT project is distributed to project partners and then to all residents as part of a public enquiry. If necessary, changes are made to the project in order to incorporate suggestions made. The PPRT is then approved by a Prefect’s decree.

Implementation of real-estate measures
Once the PPRT is approved, a three-way financial agreement must firstly be signed in order to implement identified real-estate measures in the areas of possible expropriation or relinquishment. It is then up to local authorities to initiate the relevant procedures.

An example of dialogue, the CLIC – set up by a Prefect’s decree – represents the entire territory concerned by the existence of a top tier SEVESO establishment. The CLIC plays a central role in the PPRT.

Membership
There are at most 30 members, representing all parties involved, split into five groups: administration (Prefects, DRIRE, DDE, SDIS, etc.), local authorities, operators, local residents and employees. The CLIC pass on information to the general public.

In the context of the PPRT
It is involved throughout the development process:
• it is convened by the Prefect who informs it of the launch of the PPRT process;
• it meets regularly in accordance with the conventions fixed by the Prefect’s decree;
• it nominates a representative via whom it is a partner in the development of the PPRT;
• it arranges how its representative carries out his/her task of enabling the committee to follow the stages of the PPRT;
• finally, it gives feedback on the PPRT project.

Internet sites

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