



## Annex 5.2.1: Specifications for surveillance checks for products and systems for fire detection (AFD), alarm and evacuation

### 5.2.1.1. Alarm devices

#### 5.2.1.1.1. General

The surveillance is realized as described in the control procedure CERT CAD PROC 007 J CONTROL BOSEC FD P IN 10483 (E).

This check exists in visual checks and testing of the Products. The Products that are necessary for the checks are collected by the Auditor during his visits or collected by the Auditor in the market with a minimum of 6 samples in case of tests.

This surveillance consists of 3 activities:

- visual check of the certified products (1 per year)
- surveillance tests (1 every 2 years)
- factory audit (1 per year), not necessary if the production chain is already covered by a CE-CPR certificate.

The functioning of those surveillance activities is described in the following sections.

Note: If the Certificate holder asks for the withdrawal of the certificate during the first certification year, a surveillance will be carried out. This surveillance includes a visual check and the surveillance tests.

#### 5.2.1.1.2. Visual check

The visual check consists in an identification of the certified product in relation to the initial test or the most recent approved modification. The auditor takes a base on the one hand the collected sample and on the other hand the technical certification file (test reports and modifications announced before check).

Every modification to the certified product subject to question the conformity of the product with the technical specifications for which the certification has been granted has to be subject to an analysis that can lead to the conclusion that certain tests have to be carried out again.

#### 5.2.1.1.3. Surveillance tests

Irrespective of the result of the visual check, the following surveillance tests have to be realized.

Smoke alarm devices:

Type of check/test	Specifications' reference
Marking and data (on 1 sample)	EN 14604 § 4.19
Directional dependence (on 1 sample)	EN 14604 § 5.3
Initial sensitivity (on 5 samples)	EN 14604 § 5.4
Fire sensitivity (on 4 samples, see note 1)	EN 14604 § 5.15
Battery fault warning (on 2 samples)	EN 14604 § 5.16
Sound output (on 2 samples)	EN 14604 § 5.17
Optional – Alarm silence facility (on 1 sample)	EN 14604 § 5.20

#### Note 1

The fire sensitivity surveillance test does not have to be performed systematically. It depends on a degradation of the sensitivity of the product noted during the initial sensitivity measurement. The degradation of the sensitivity is estimated in the following way. The highest value of  $m$  measured during the surveillance ( $m_{\max-s}$ ) is compared to the highest value of  $m$  given in the most recent test report mentioning fire tests ( $m_{\max-i}$ ) realized for this product or product series. The decision whether the fire sensitivity test is carried out or not is taken as follows:

- If  $m_{\max-s} - m_{\max-i} \leq 0.03$ , the sensitivity is considered to be unaltered and the fire tests do not have to be performed again;
- If  $m_{\max-s} - m_{\max-i} > 0.03$ , the sensitivity is considered to be degraded and the 4 fire tests have to be performed again and the requirements of this test have to be satisfactory.

On top of that, the lowest value of  $m$  measured during the surveillance has to be higher than or equal to 0.05 dB/m.



Heat alarm devices:

Type of check/test	Specifications' reference
Static response temperature (on 2 samples)	BS 5446-2 §5.4
Response times from typical application temperature (on 2 samples, see note 2)	BS 5446-2 §5.5
Response times from 25°C (on 1 sample, see note 2)	BS 5446-2 §5.6
Response times from high ambient temperature (on 1 sample, see note 2)	BS 5446-2 §5.7
Sounder output (on 1 sample)	BS 5446-2 §5.16
Marking and data (on 1 sample)	BS 5446-2 §6 et §7

**Note 2**

The three response time surveillance tests do not have to be performed systematically. It depends on a degradation of the response of the product noted during the measurement of the static response temperature. The degradation of the response is estimated in the following way. The lowest value of the response temperature measured during the surveillance ( $T_{min-s}$ ) is compared to the lowest response value given in the most recent test report where the response times have been checked ( $T_{min-i}$ ) for this product or product series. The decision whether the response times have to be measured or not is taken as follows:

- If  $T_{min-s} - T_{min-i} \leq 3^{\circ}C$ , the response is considered to be unaltered and the response times do not have to be measured again;
- If  $T_{min-s} - T_{min-i} > 3^{\circ}C$ , the response is considered to be degraded and the 3 response times have to be measured again and the test requirements have to be satisfactory.

CO alarm devices:

Type of check/test	Specifications' reference
Marking and data (on 1 sample)	EN 50291-1 §4.7
Alarm conditions (on 1 sample)	EN 50291-1 §5.3.4
Alarm during heating time (on 1 sample, see note 3)	EN 50291-1 §5.3.5
Response and recovery to a high CO volume concentration (on 1 sample, see note 3)	EN 50291-1 §5.3.6
Response to carbon monoxide and other gases mixes (on 1 sample, see note 3)	EN 50291-1 §5.3.12
Alarm sound level (on 1 sample)	EN 50291-1 §5.3.16

**Note 3**

Those 3 surveillance tests do not have to be performed systematically. It depends on a degradation of the response of the product noted during the alarm conditions test. The degradation of the response is estimated in the following way. The response times to gas B and C measured during the surveillance ( $T_{B-s}$  and  $T_{C-s}$ ) are compared to the response time given in the most recent test report where the verifications §5.3.5, §5.3.6 and §5.3.12 have been performed ( $T_{B-i}$  and  $T_{C-i}$ ) for this product or product series. The decision whether to perform those 3 tests or not is taken as follows:

- If  $T_{B-s} - T_{B-i} \leq 5$  minutes and  $T_{C-s} - T_{C-i} \leq 5$  minutes, the response is considered to be unaltered and those 3 surveillance tests do not have to be performed again;
- If  $T_{B-s} - T_{B-i} > 5$  minutes or  $T_{C-s} - T_{C-i} > 5$  minutes, the response is considered to be degraded and those 3 surveillance tests have to be performed again and the test requirements have to be satisfactory.

**5.2.1.1.4. Factory audit**

If the chain that manufactures the certified products is not covered by a CE-CPR certificate, it has to be audited. The procedures and criteria are identical to those applied in the framework of a CE-CPR certification for a fire detection component. The surveillance modalities are described in the procedure CERT CAD PROC 010 Z\_O INIT\_SURV FPC IN 10492 E.

**5.2.1.1.5. Review of the results of the surveillance activities**

Within a time delay of 20 working days following the delivery of the visual check report, the test report from the assigned laboratories or the factory audit report, the division certification sends the report together with, if necessary, a request for corrective actions to the Holder of the certification. The certificate Holder then has 15 days to react and 30 days to rectify the situation. In case of non-conformity noted within 12 months following this rectification, the frequency of the surveillance activities can be strengthened over a certain period to be defined.



With regard to the results of the corrective actions, the following decisions can be taken:

1. maintain the right to use the brand BOSEC
2. apply a sanction:
  - A warning letter. This letter contains the corrective measures decided by ANPI Division Certification,
  - The temporary exclusion from the right to use the brand awaiting the corrective actions
  - The permanent exclusion from the right to use the brand

#### **5.2.1.2. Automatic fire detection system components**

##### *5.2.1.2.1. General*

The surveillance is realized as described in the control procedure CERT CAD PROC 007 J CONTROL BOSEC FD P IN 10483 (E).

This check exists in visual checks. The Products that are necessary for the checks are collected by the Auditor during his visits.

This surveillance consists of 2 activities:

- visual check of the certified products (1 per year)
- factory audit (1 per year), not necessary if the production chain is already covered by a CE-CPR certificate.

The functioning of those surveillance activities is described in the following sections.

##### *5.2.1.2.2. Visual check*

The visual check consists in an identification of the certified product in relation to the initial test or the most recent approved modification. The auditor takes a base on the one hand the collected sample and on the other hand the technical certification file (test reports and modifications announced before check).

Every modification to the certified product subject to question the conformity of the product with the technical specifications for which the certification has been granted has to be subject to an analysis that can lead to the conclusion that certain tests have to be carried out again.

##### *5.2.1.2.3. Factory audit*

If the chain that manufactures the certified products is not covered by a CE-CPR certificate, it has to be audited. The procedures and criteria are identical to those applied in the framework of a CE-CPR certification for a fire detection component. The surveillance modalities are described in the procedure CERT CAD PROC 010 Z\_O INIT\_SURV FPC IN 10492 E.

##### *5.2.1.2.4. Review of the results of the surveillance activities*

Within a time delay of 20 working days following the delivery of the visual check report, the test report from the assigned laboratories or the factory audit report, the division certification sends the report together with, if necessary, a request for corrective actions to the Holder of the certification. The certificate Holder then has 15 days to react and 30 days to rectify the situation. In case of non-conformity noted within 12 months following this rectification, the frequency of the surveillance activities can be strengthened over a certain period to be defined.

With regard to the results of the corrective actions, the following decisions can be taken:

1. maintain the right to use the brand BOSEC
2. apply a sanction:
  - A warning letter. This letter contains the corrective measures decided by ANPI Division Certification,
  - The temporary exclusion from the right to use the brand awaiting the corrective actions
  - The permanent exclusion from the right to use the brand



### 5.2.1.3. Fire detection systems

For the Fire detection systems:

- The surveillance is realized as described in the control procedure CERT CAD PROC 007 J Control BOSEC FD P IN 10483 (E)
- This surveillance only exists in visual checks.
- This is a yearly surveillance.
- The necessary Products are collected by the Auditor during his visits.
- The C.I.E.'s are checked on site (stock place). In case of non-conformity, they are collected by the Auditor mandated by ANPI for those supplementary surveillance checks. The bases from the detectors are also collected.

Within a time delay of 20 working days following the delivery of the visual check report, the test report from the assigned laboratories or the factory audit report, the division certification sends the report together with, if necessary, a request for corrective actions to the Holder of the certification. The certificate Holder then has 15 days to react and 30 days to rectify the situation. In case of non-conformity noted within 12 months following this rectification, the frequency of the surveillance activities can be strengthened supplementary collecting of 5 samples over a certain period to be defined.

With regard to the results of the corrective actions, the following decisions can be taken:

1. maintain the right to use the brand BOSEC
2. apply a sanction:
  - A warning letter. This letter contains the corrective measures decided by ANPI Division Certification,
  - The temporary exclusion from the right to use the brand awaiting the corrective actions
  - The permanent exclusion from the right to use the brand