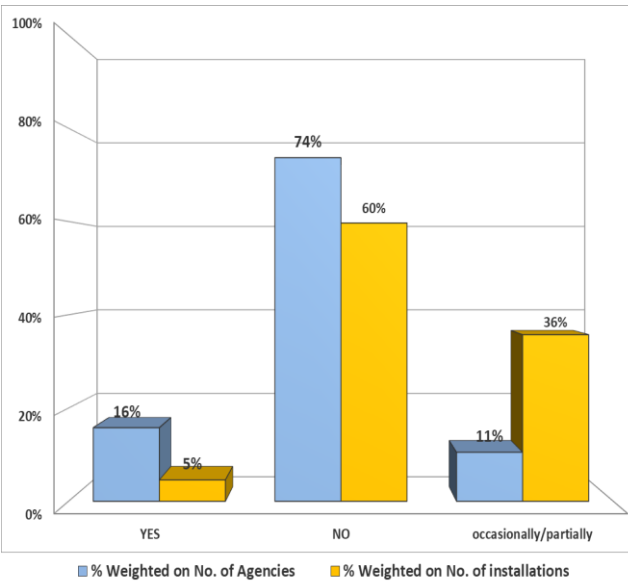


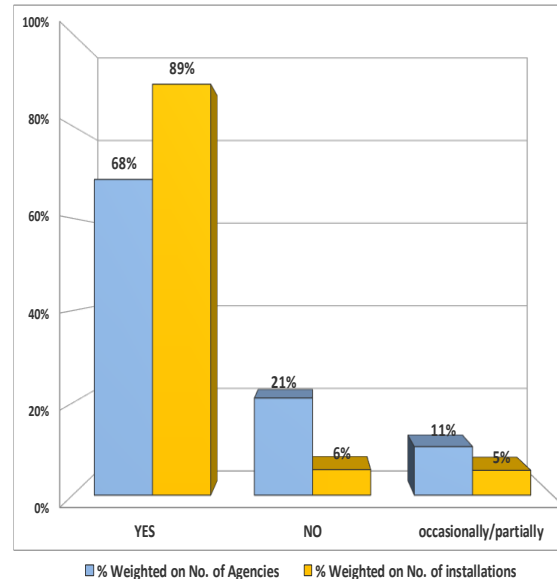
# 1. Identification of the audit team

## 1.1 The audit team is established

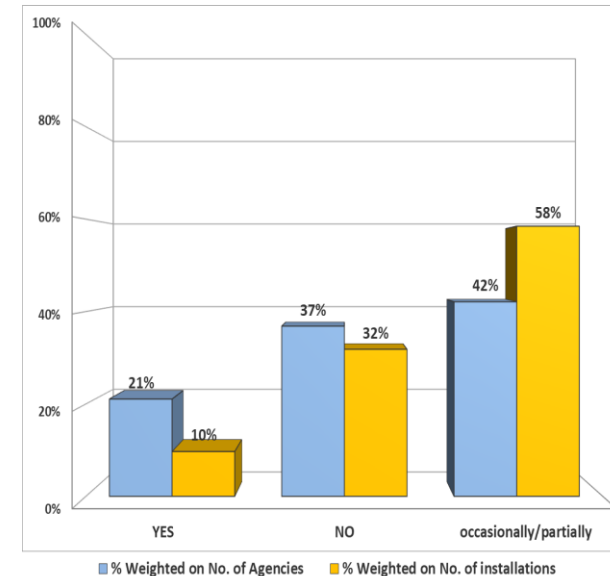
### 1.1a Central level



### 1.1 b Local level



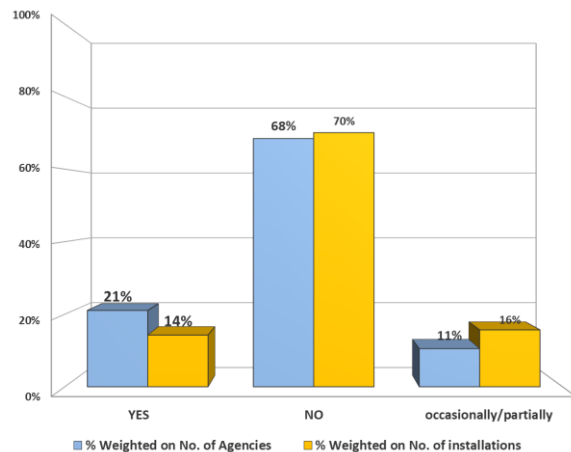
### 1.1c Combination of C&L



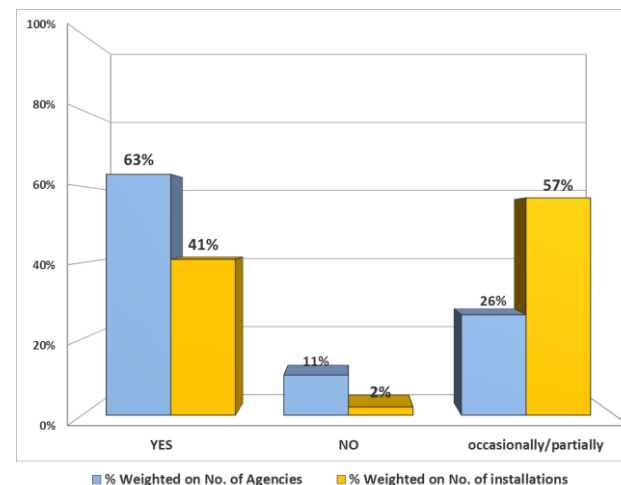
It is noted that the audit team is only marginally formed at central level. In fact, only few agencies, due to their organizational structure, provide specific teams at central level. Hence, it prevails the option to build the audit team at local level, valuing the local staff.

## 1.2 The inspection team consists of inspectors from

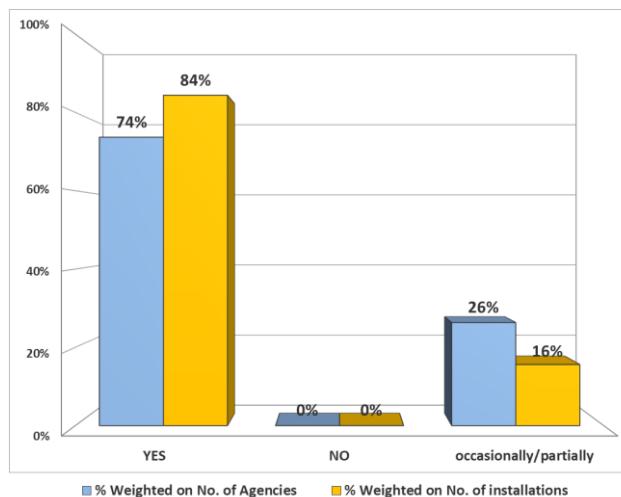
**1.2.a** The inspection team consists of inspectors belonging to a structure permanently dedicated to IED inspections



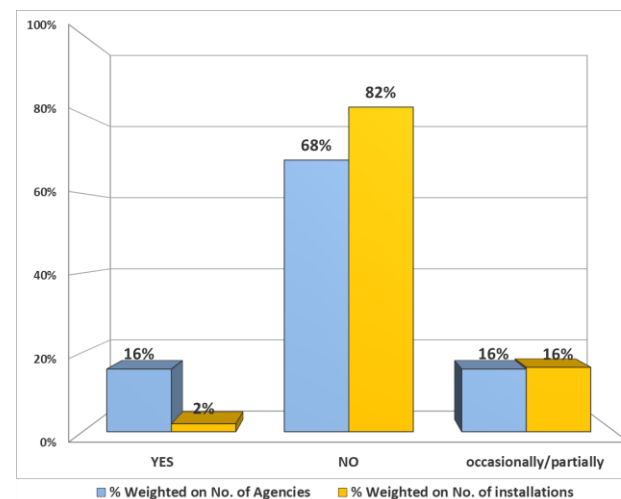
**1.2.b** The inspection team is formed from time to time depending on the type of installation



**1.2.c** The inspection team is formed from time to time on the basis of the environmental media to be controlled



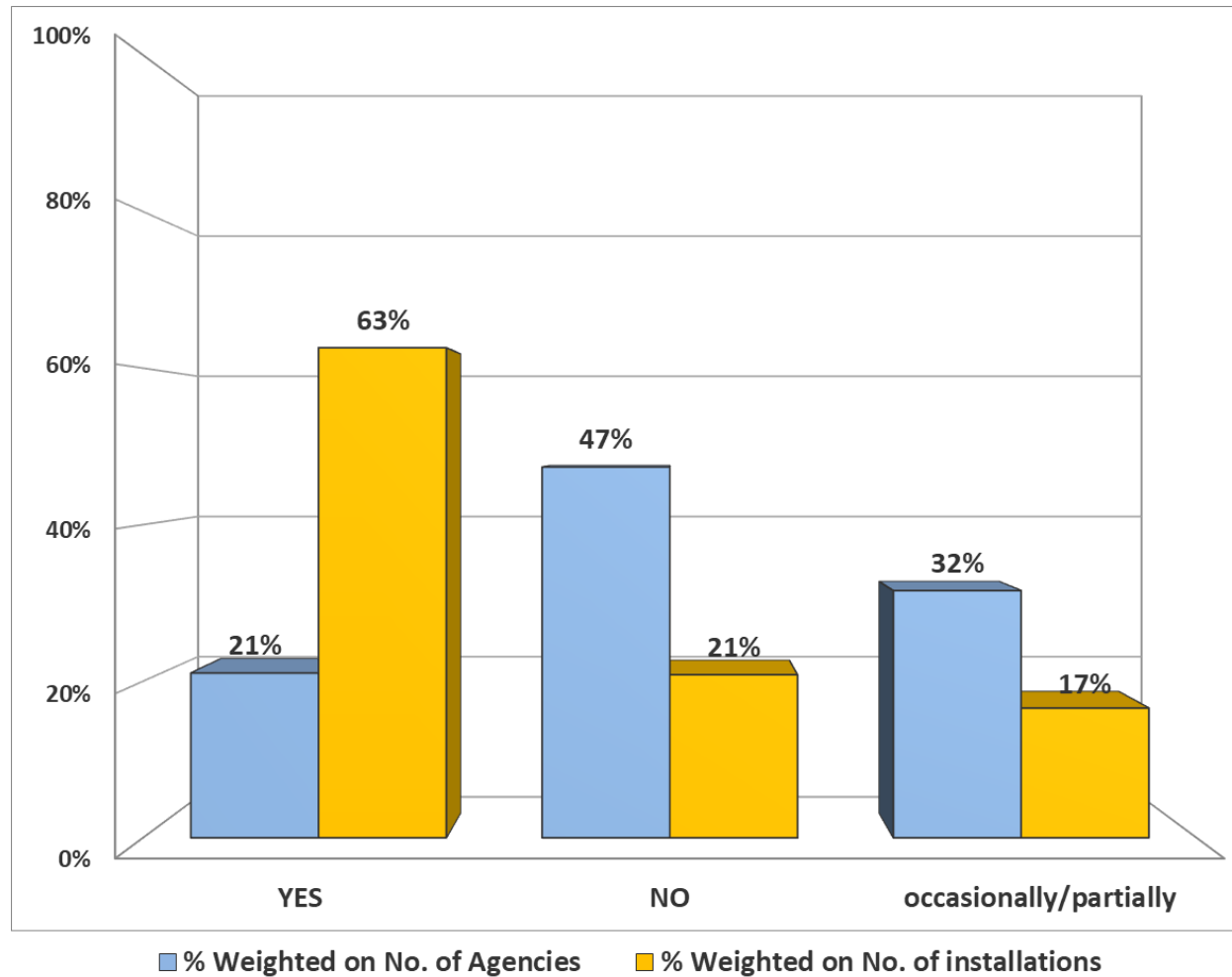
**1.2.d** The inspection team is also formed by staff of other institutions



It appears that over 60% of the Agencies (and as a consequence also of the Installations concerned) does not have a permanent structure dedicated to the IED implementation and enforcement, for this reason, the inspection team is composed on the basis of needs; exception is represented by two Agencies that in some Units have specifically devoted staff and two other Agencies that provide a permanent team.

### 1.3 The audit team establishment takes into account the inspector staff turnover imposed by the anti-corruption legislation

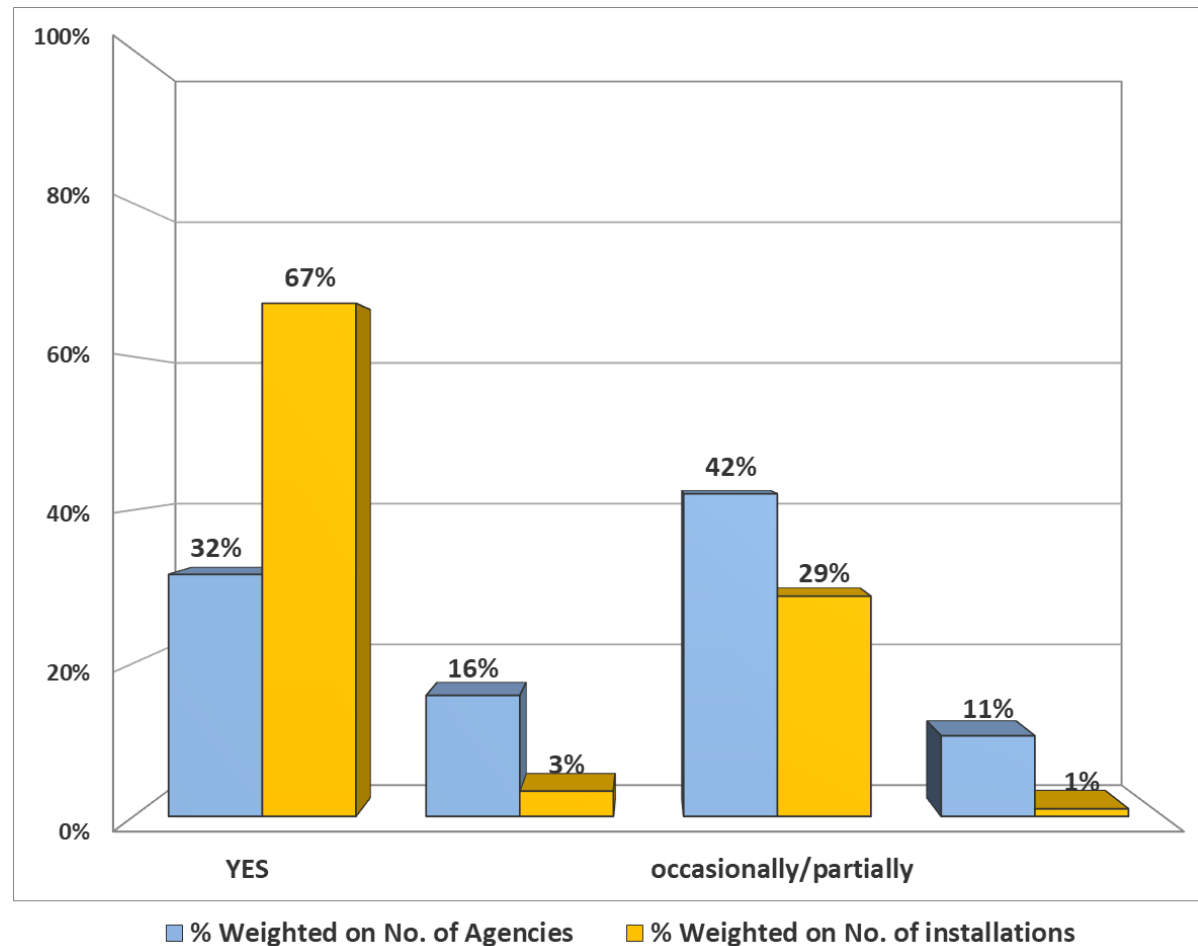
It is noted some difficulty in implementing the anti-corruption legislation, especially concerning the application of the principle of inspector staff turnover. Only in 4 Agencies the turnover is totally applied, while in other cases the turnover is totally (47%) or partially (32%) unapplied.





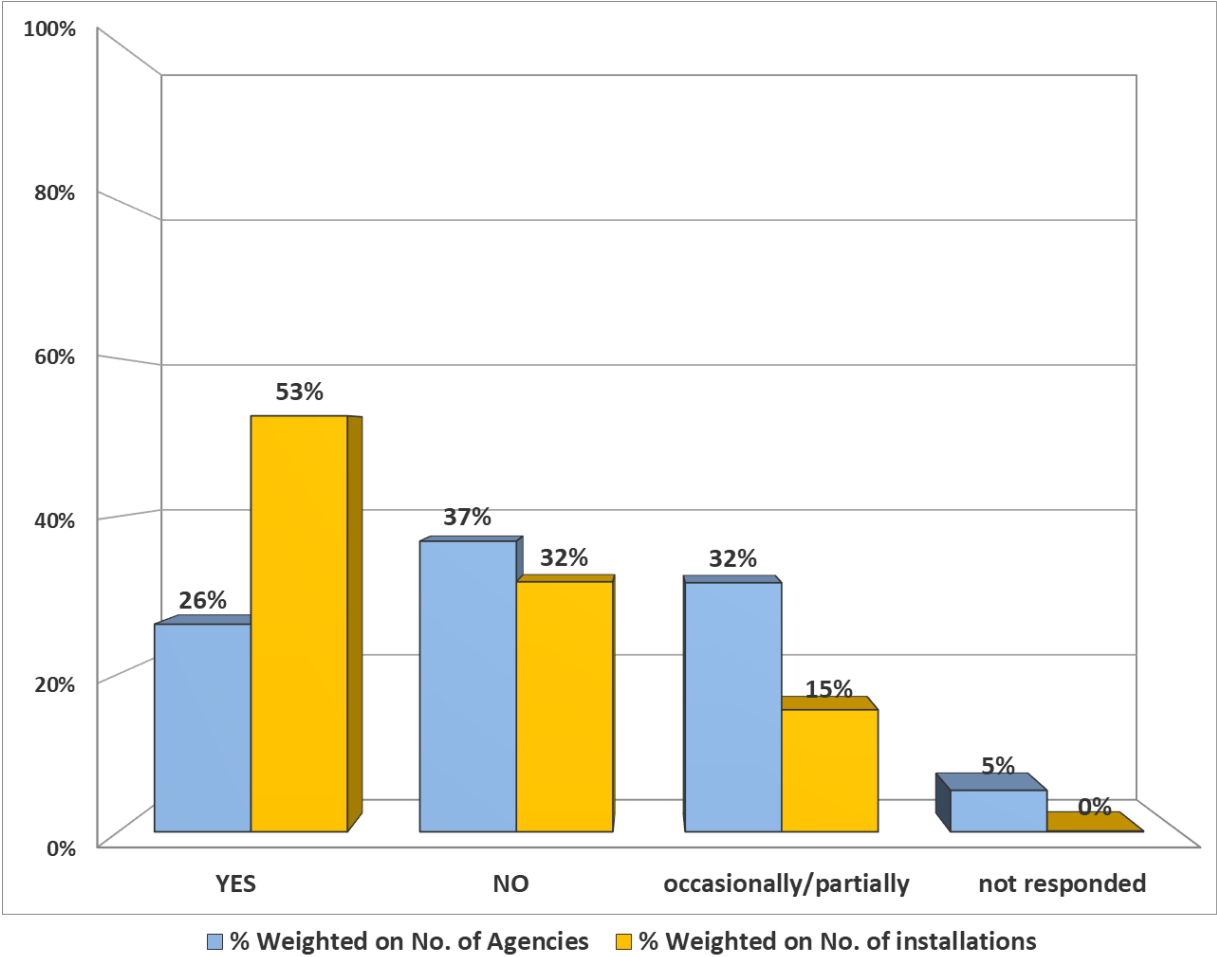
**1.4** *In the establishment of the audit team exists the possibility of a compensation between different territorial structures*

The answer is largely positive and only in three regions (affecting a minimum number of installations) there is no compensation.



**1.5** *In the establishment of the audit team exists the possibility of a compensation of the technical direction towards the territorial structures*

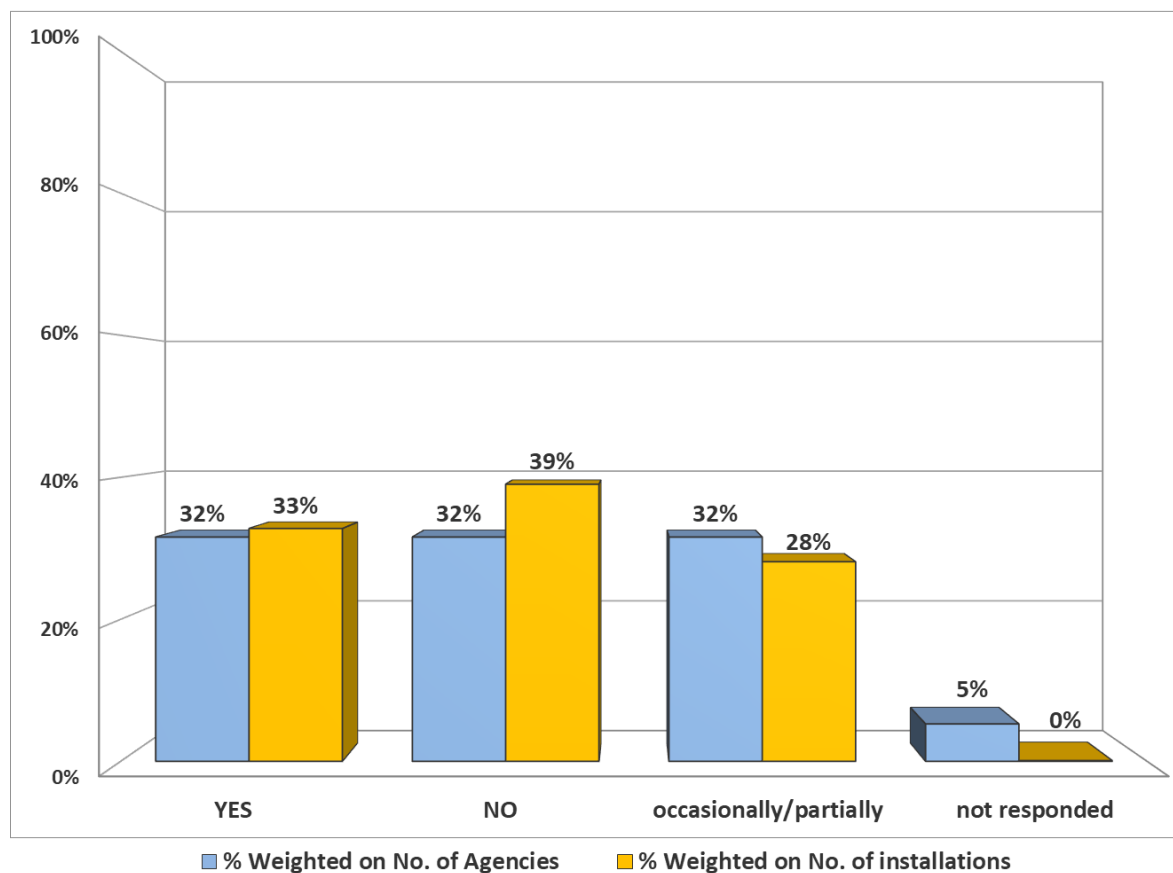
Only in a few Agencies this possibility exists, but it impacts on a large number of installations because involves biggest Agencies. It must be take into account the different organization of the Agencies in terms of centralization or decentralization of this activity.



**1.6** *In the establishment of the audit team the presence of personnel with qualification of Official Criminal Police (OCP) is envisaged*

It is noted a situation of flat heterogeneity, since the response is divided in 1/3 of positive and 1/3 of negative. It is necessary to take into account that there are Agencies where it is not foreseen the presence of personnel with the qualification of Official Criminal Police (OCP).

In the light of the Law 132/2016, the legal representatives of Agencies now have the possibility to identify and appoint the inspectors with the qualification of Official Criminal Police (OCP).

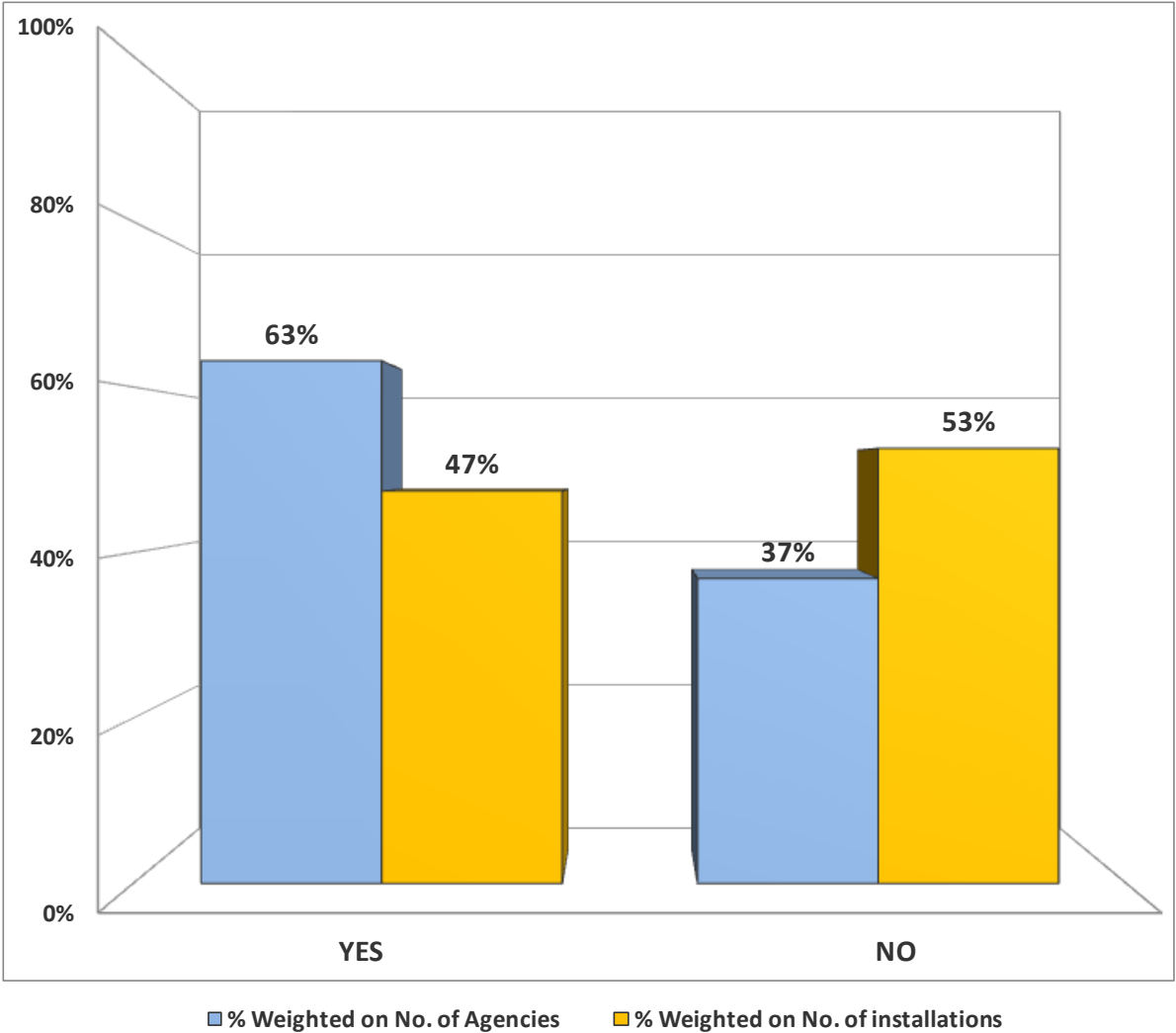


## 2. Scheduling and drafting of a detailed Control Plan

**2.1 The ROUTINE audit is considered complete when all environmental media have been checked**

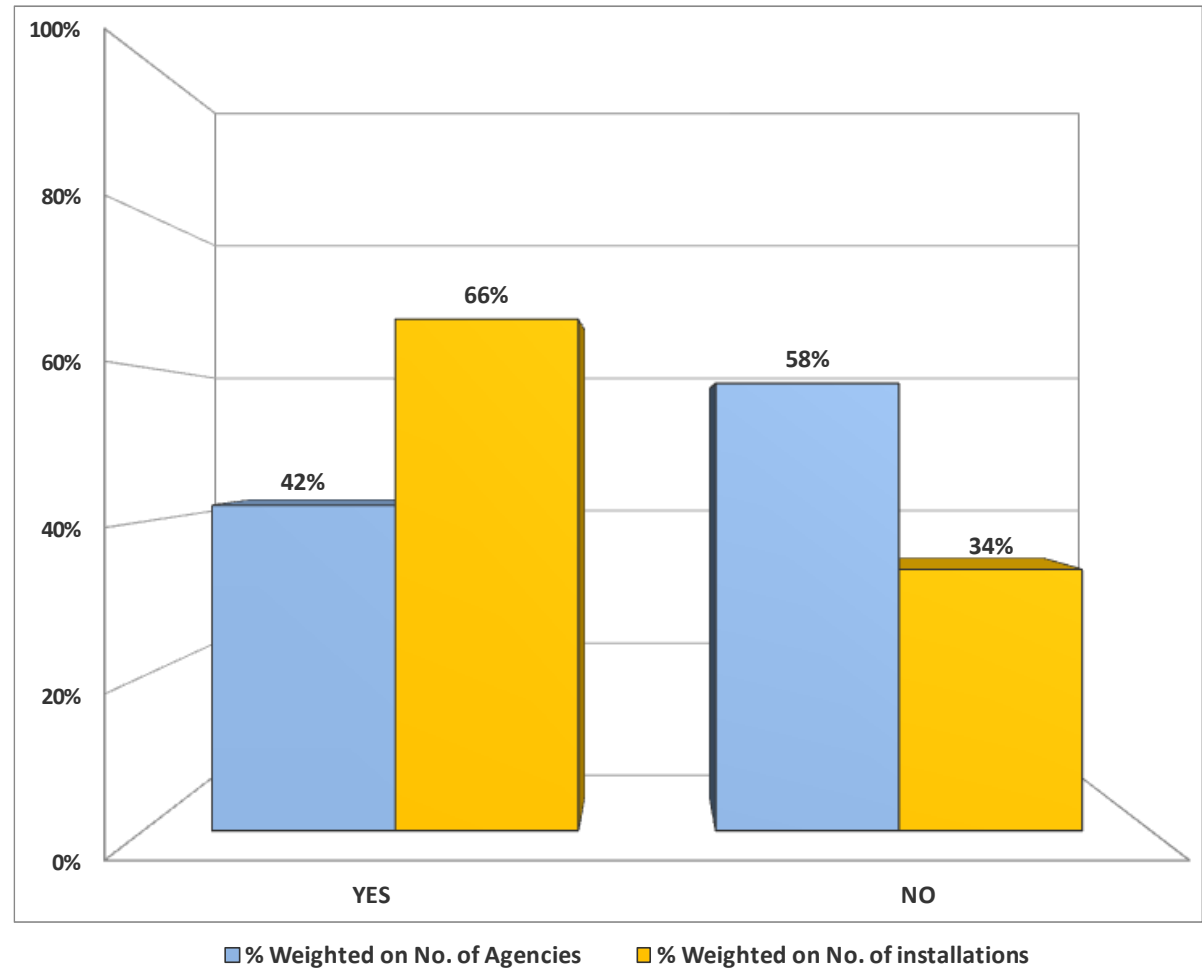
It is noted that the responses of many Agencies were positive, although it is counterbalanced, in terms of Installations concerned, by the negative feedback of some large regions with a big number of Installations.

It is assumed that the large number of installations present in big regions makes it difficult to ensure a high number of audits whether all environmental media must be checked.



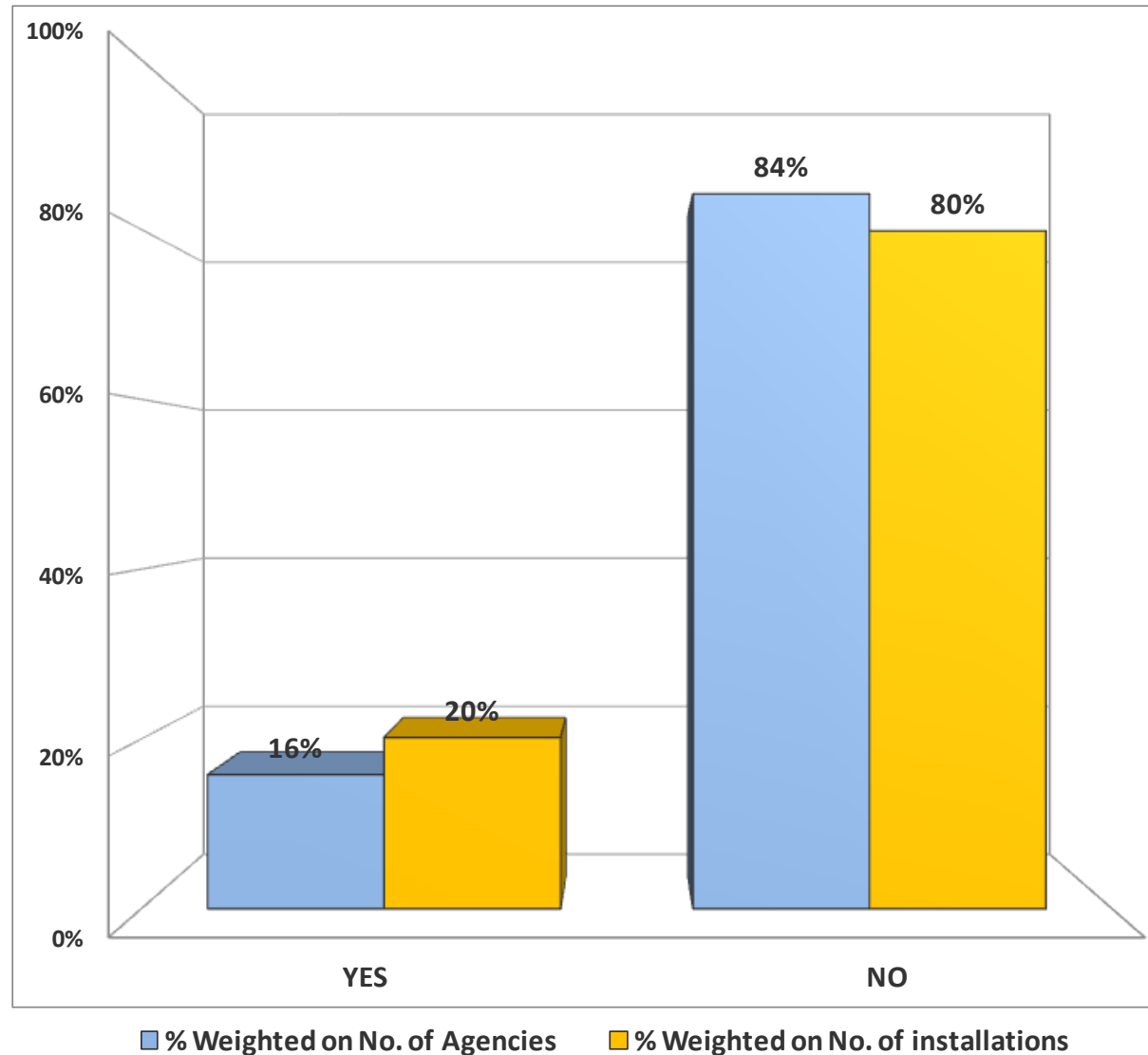
## 2.2 The ROUTINE inspection is considered complete when even one environmental media has been checked

The responses are consistent with the regulations, which provide for the possibility that in the routine inspections not all environmental media must be checked. However, it seems inconsistent with the responses to the previous question, because we expected similar percentages.



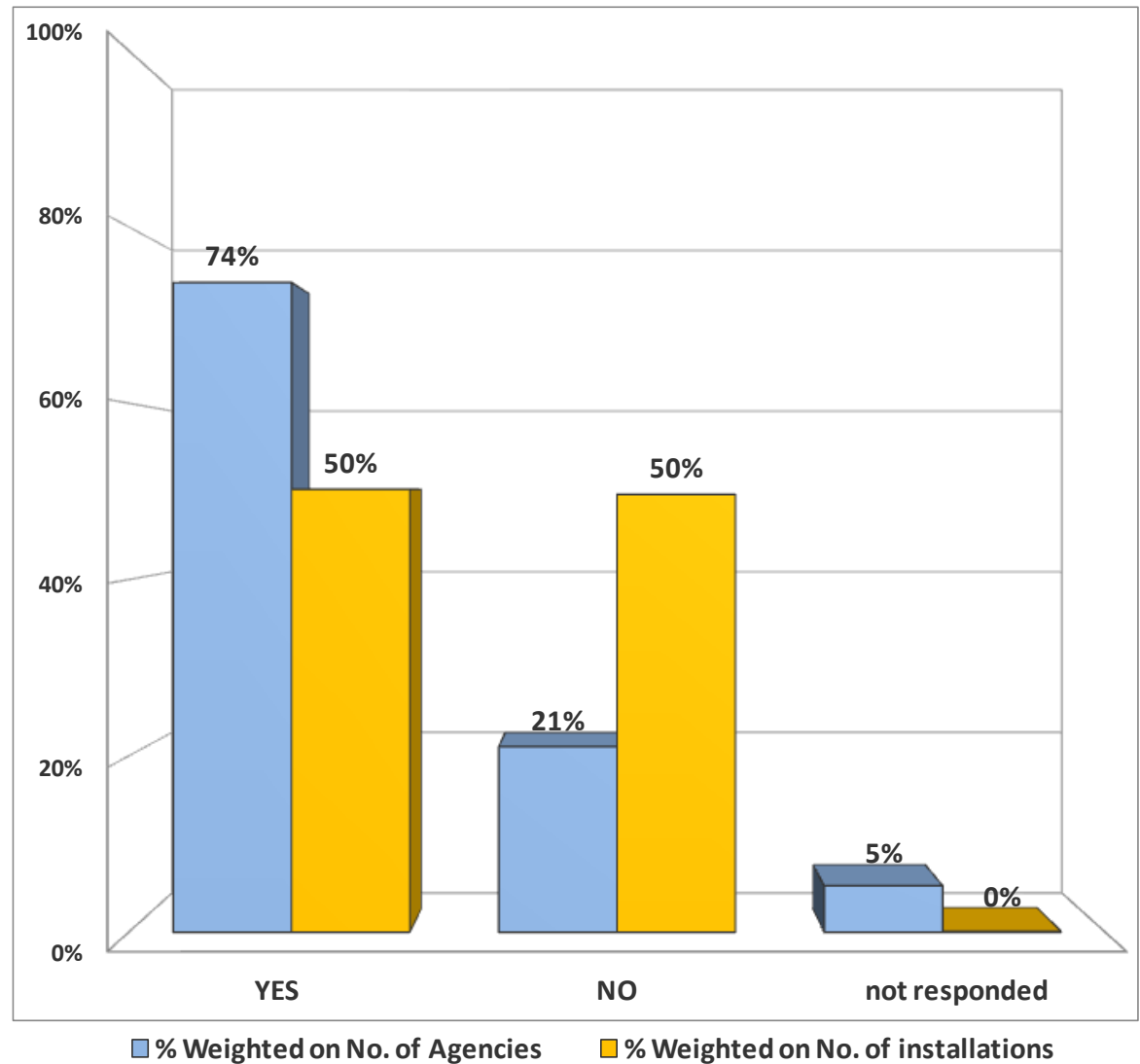
### 2.3 NON-ROUTINE inspections predominate on ROUTINE audits from the point of view of occurrence programming

In most cases routine inspection prevails (more than 80% in terms of both Agencies and Installations), only 3 Agencies give priority to non-routine inspections.



**2.4 Any non-routine inspections are only performed on disposal of the Competent Authority or can be performed on Agency's initiative**

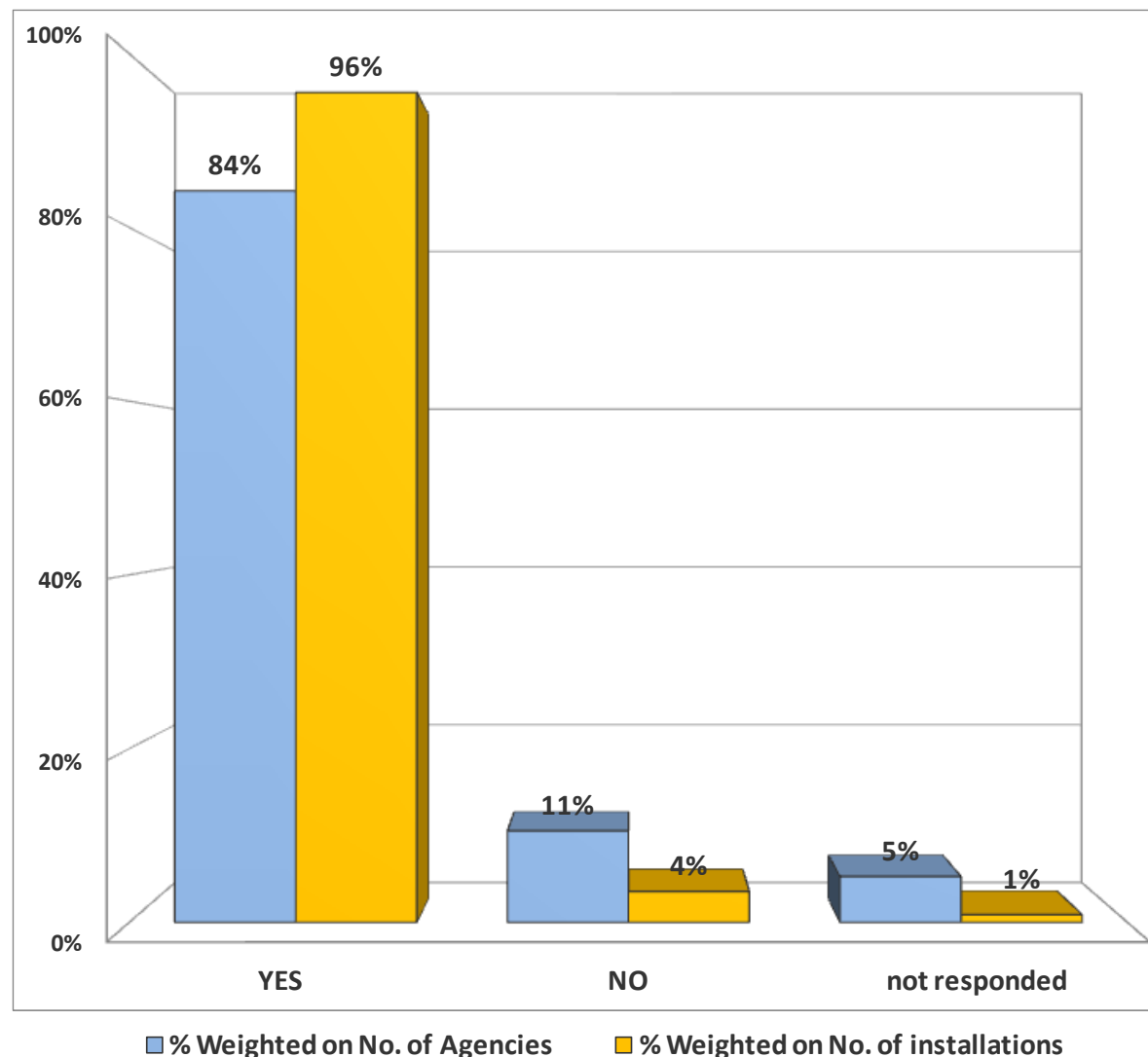
Only 4 agencies have non-routine audits of their own initiative, although potentially affecting a significant number of Installations.





## 2.5 The occurrence of routine inspections is scheduled on predefined criteria

Only 2 agencies answered negatively and only one Agency did not answer, because the need to establish predefined criteria is regulated by art. 29- decies, paragraph 11-ter of Legislative Decree no. 152/06

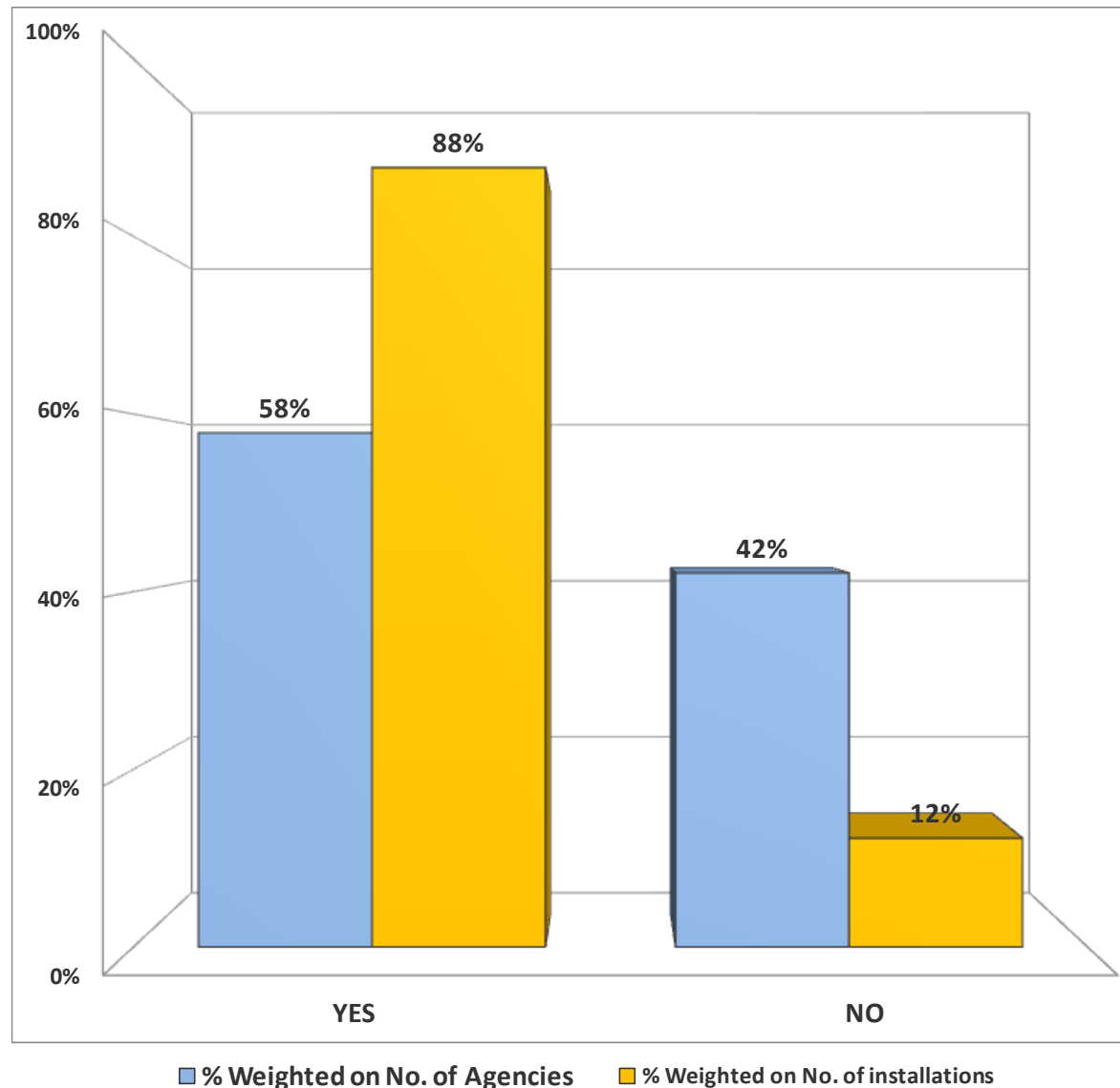


## 2.6 *To schedule the occurrence of routine inspections, the Agency uses formalized tools /criteria for risk assessment*

The response is negative by more than 40% of the Agencies and this data appears to be inconsistent with the previous ones, which showed the presence of predefined criteria.

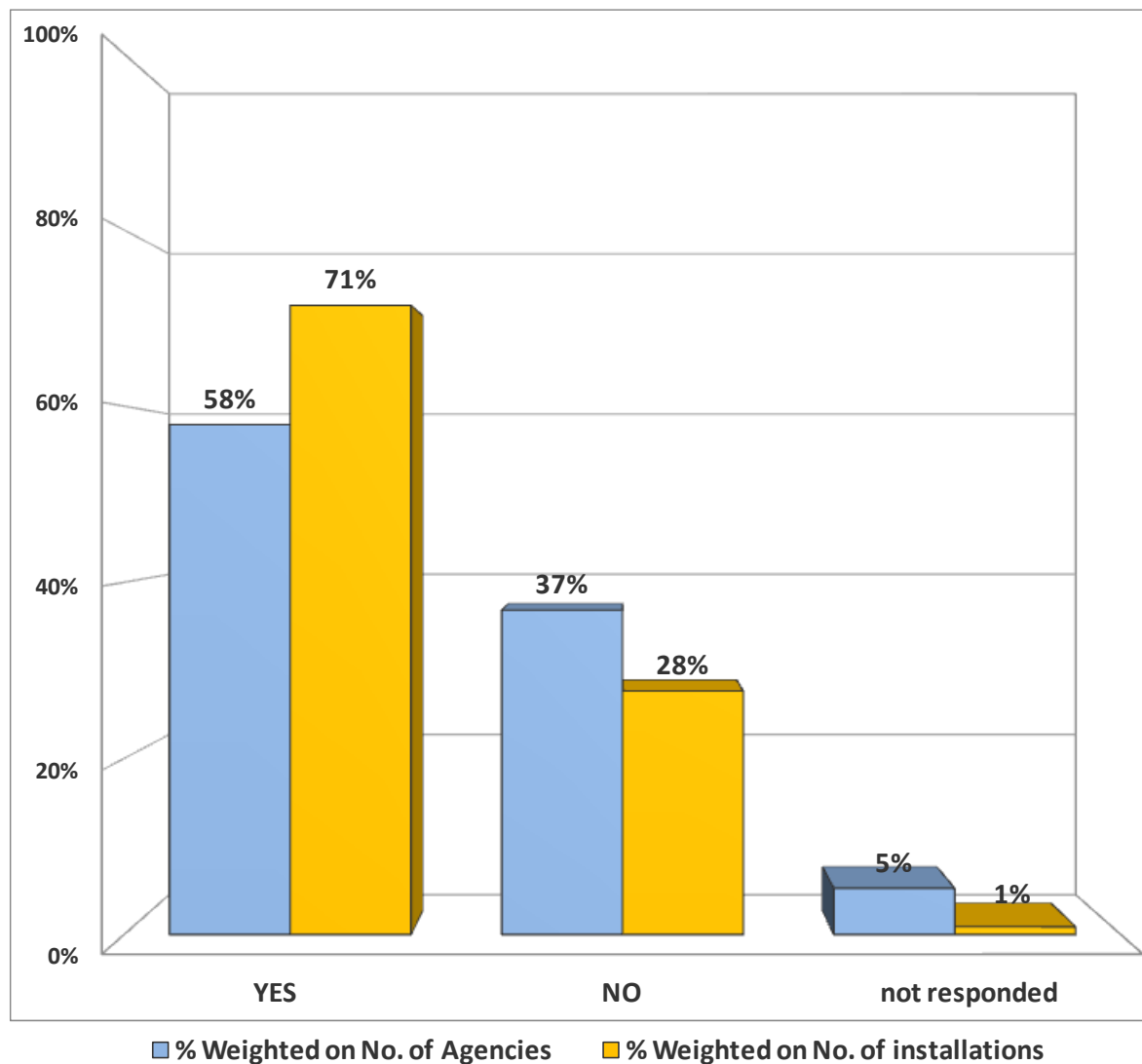
A possible clue could be the lack of formalization of the criteria themselves, therefore: criteria are present, but not defined at system level.

If you watch at the number of concerned installations, the percentage drops to 12% as all major regions have responded positively.



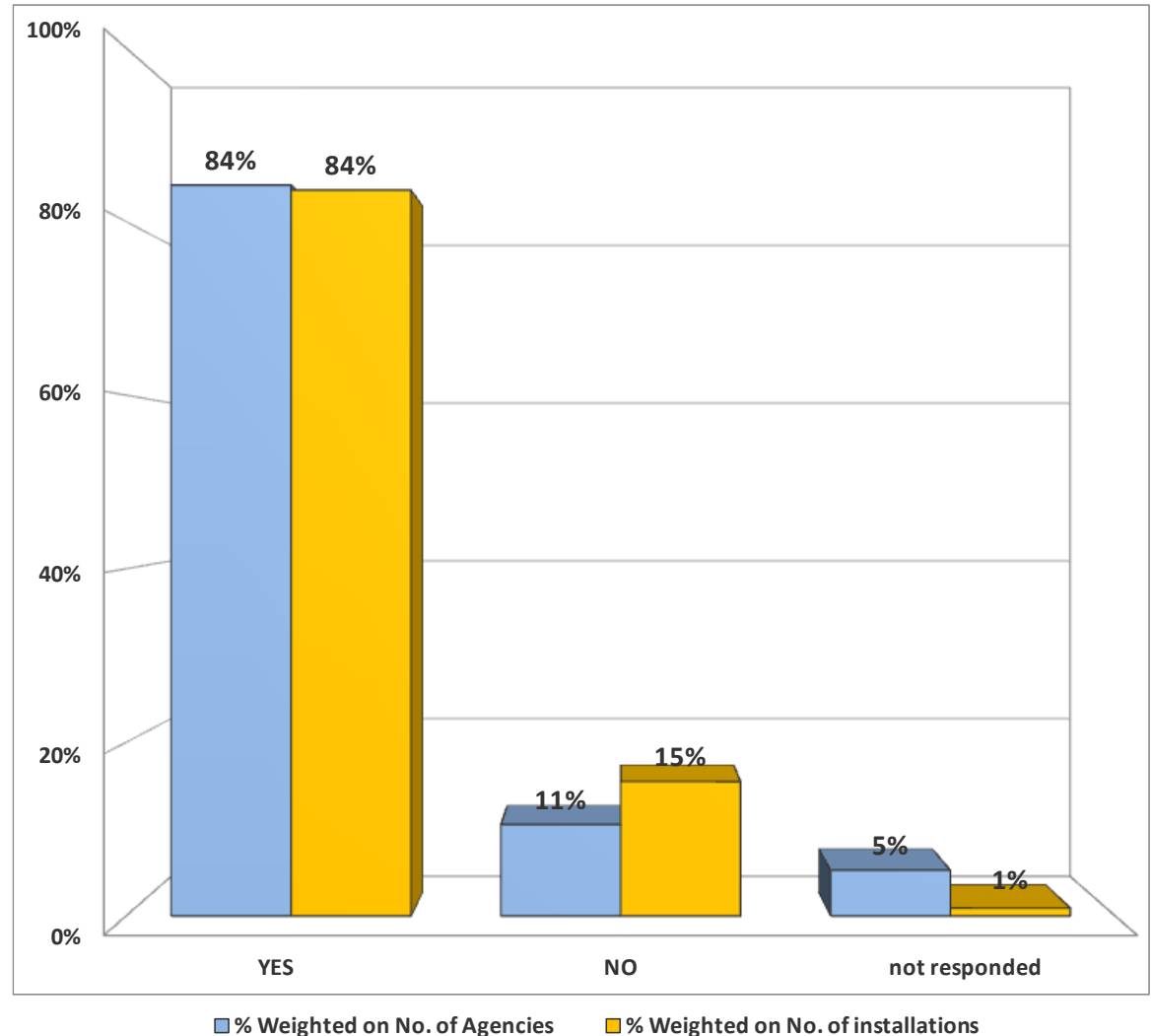
## 2.7 *The results of the assessment of self-monitoring may affect the occurrence of routine inspections*

The response is positive for more than half of the Agencies (representing more than 70% of Installations) and highlights the utility of self-monitoring for both the Installation, that monitors the performance of its plants, and the inspection authority, that uses the information to better program the audit activities. It would be advisable that the assessment of self-monitoring will become a common element of the system.



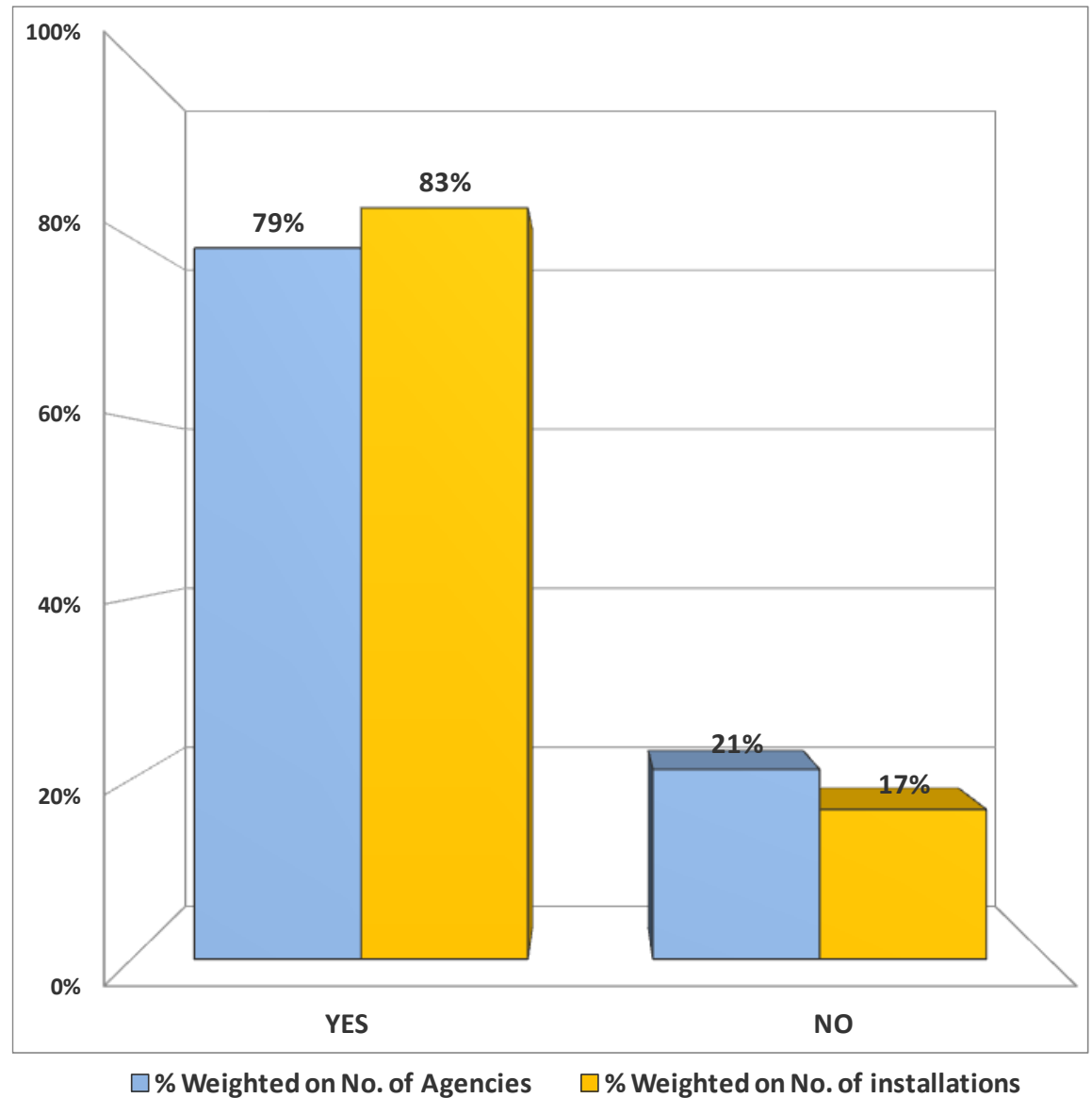
## 2.8 The results of the assessment of self-monitoring can trigger any non-routine inspections

The response is positive for more than 80% of the Agencies and a similar percentage of Installations. The same considerations as for the previous question can be applied and it is clear the importance that this issue holds for the Agencies.



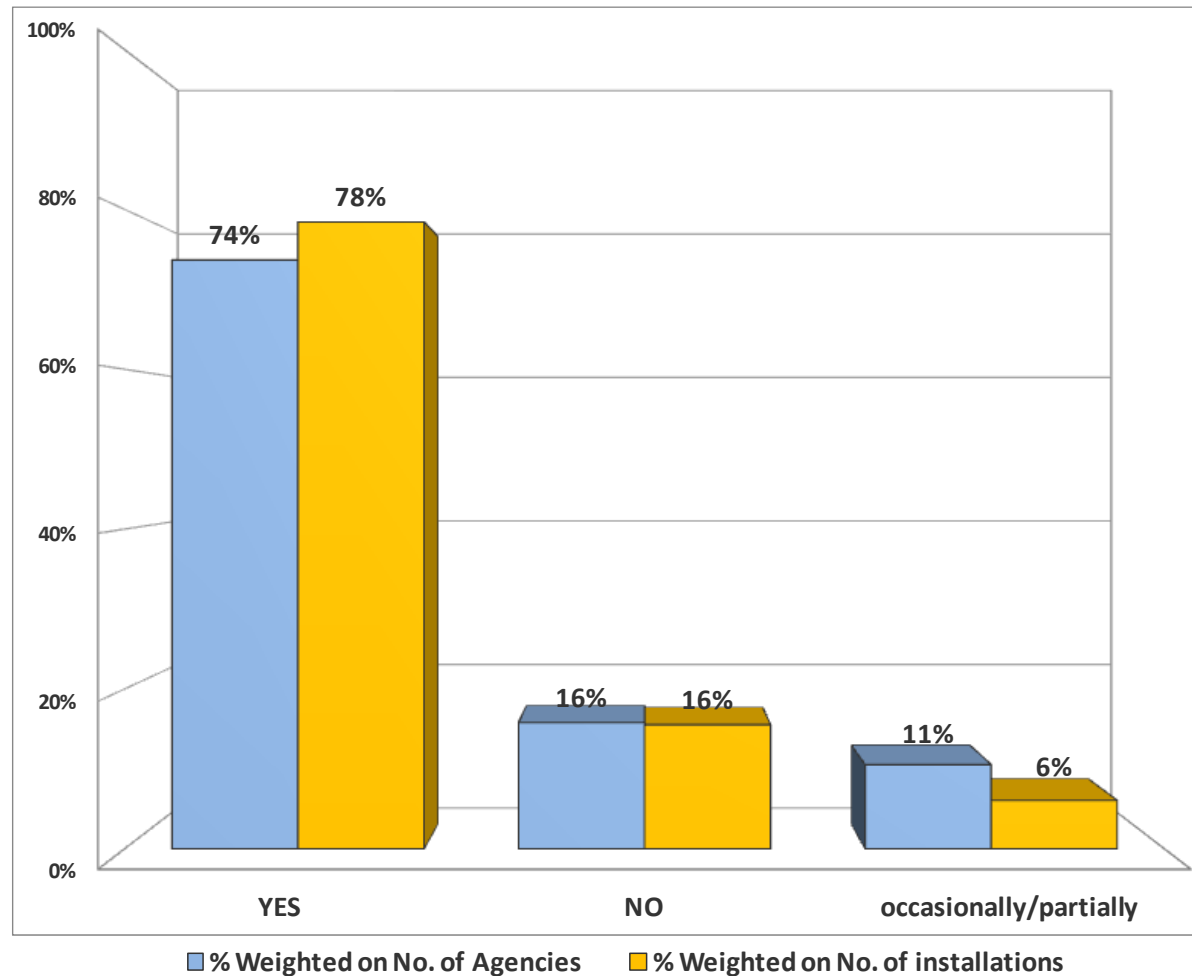
## 2.9 *The outcomes of previous inspections can affect the occurrence of inspections*

It is noted a percentage similar to the previous question, that is positive for more than 70%. This element is included within the method of scheduled programming (SSPC).



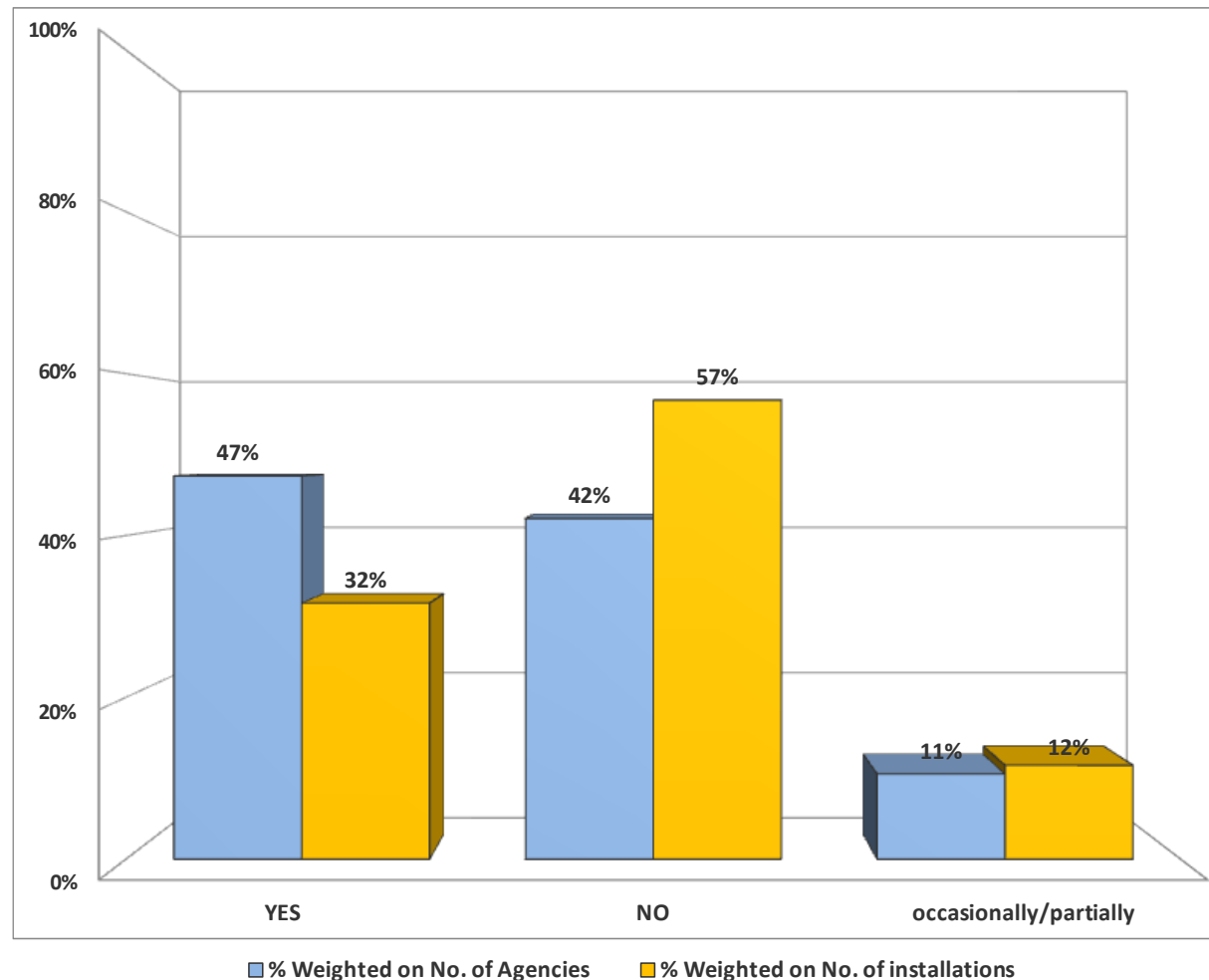
## 2.10 *The inspection programme with the definition of the inspection team is defined on an annual basis*

It is noted that the programme is properly carried out on an annual basis, in light of the availability of supporting tools for the scheduling of the audit occurrence, and this is for over 70% of the Agencies (and the Installations concerned), probably ensuring a better task management.



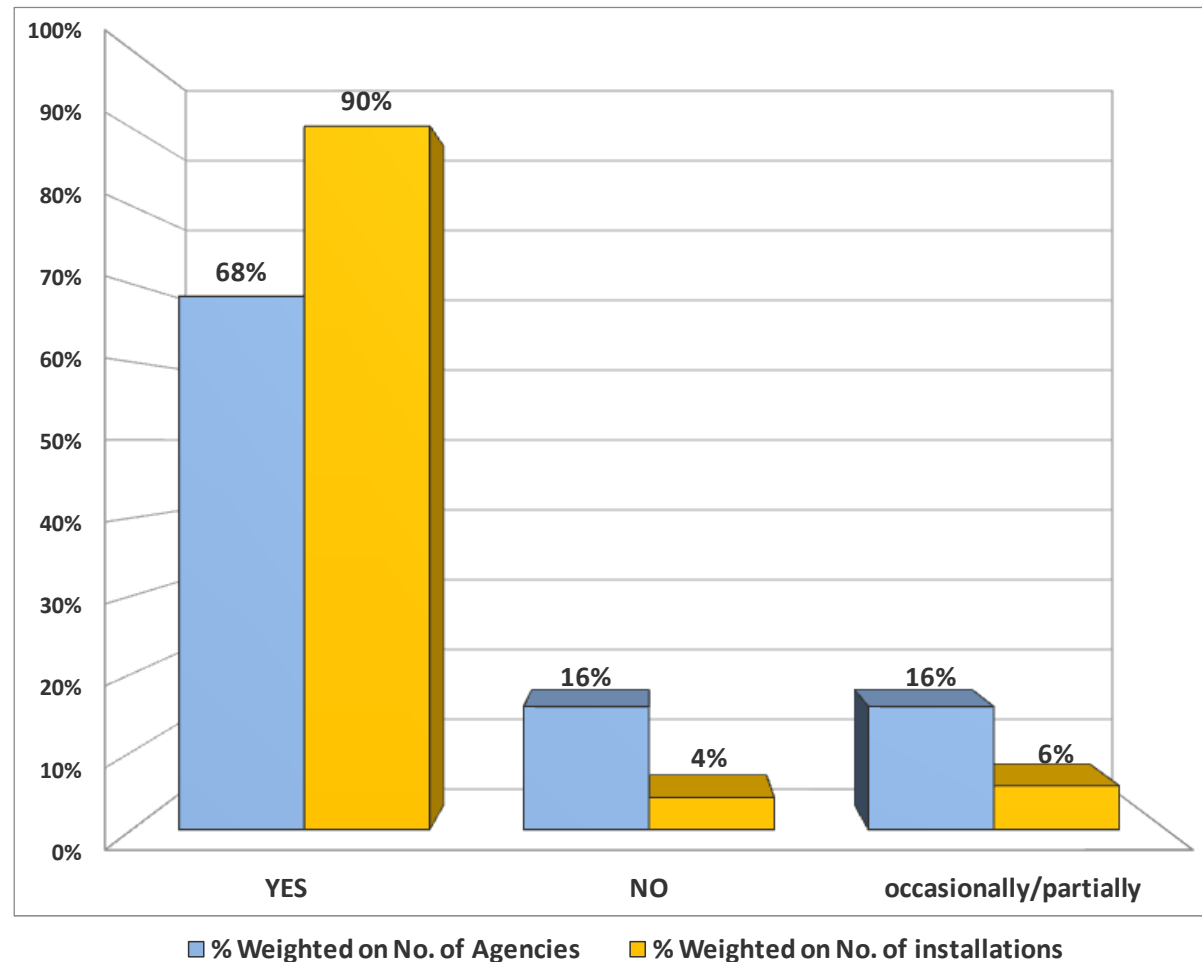
**2.11** *The possible participation of external expert staff, other than exclusively dedicated to IED installation inspections, is formalized*

The response of the Agencies is allocated in a similar percentage between yes and no, without showing a clear prevalence of major or minor regions.



## 2.12 *The required Agency'lab activities are defined at the planning stage of the IED inspections*

The response shows that the annual programme should also involve the identification of the lab activities required by the inspections; just 16% of the Agencies responded negatively. It is clear the importance of analytical laboratories that represent an added value of the Agencies in respect to other inspection authorities.

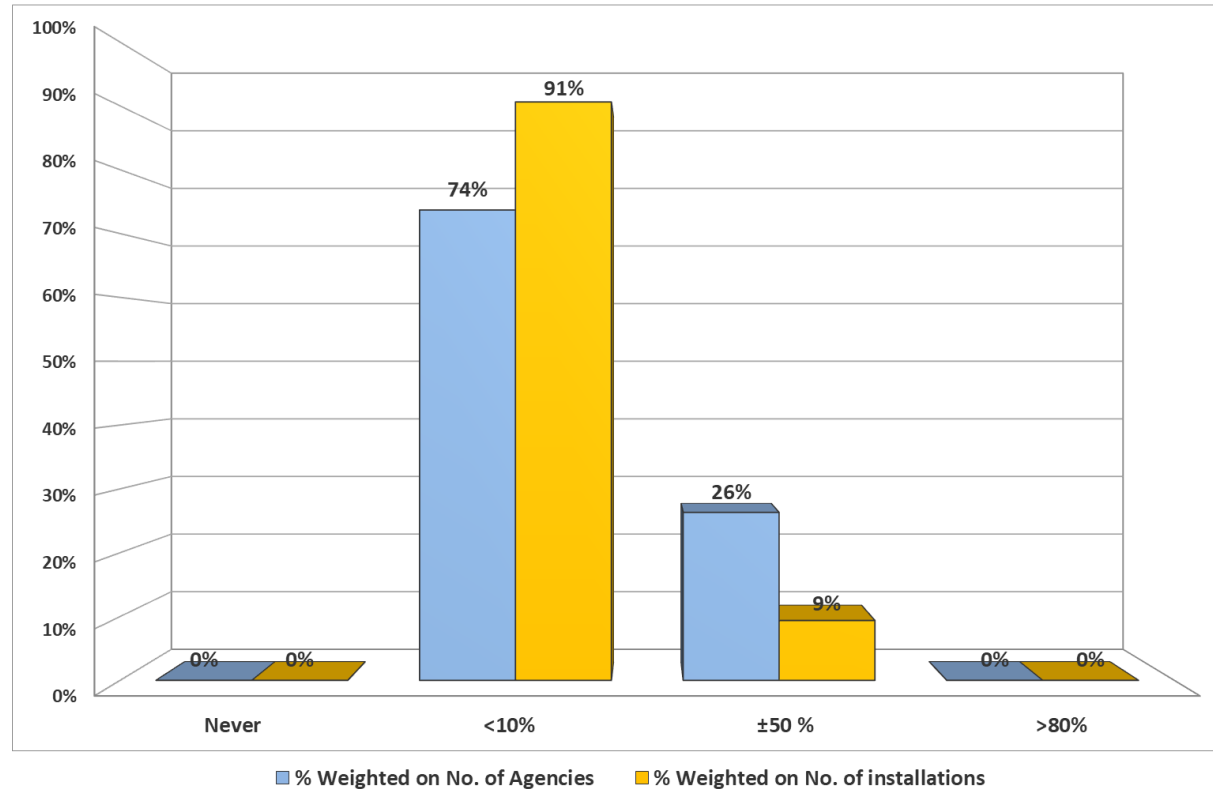




## 2.13 Inspection activities on request of the Judicial Authority at which percentage affect the overall IED inspection activities

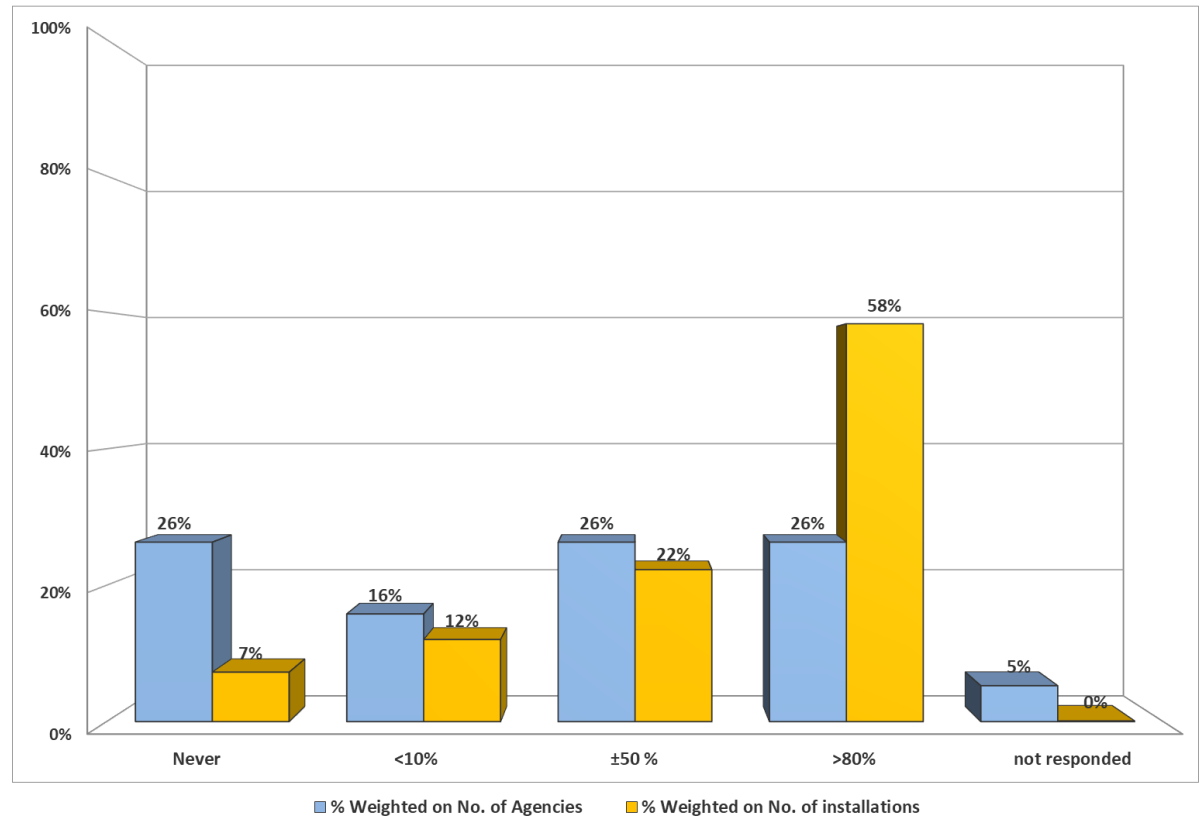
The responses show that only in 4 Agencies the JA requests weigh approximately 50%, while in the remaining Agencies the JA requests stay below 10% and the number of installations concerned is still lower.

It is believed that the data is consistent with the weight of the JA requests on the number of environmental inspections even out of the IED sector.



**2.14** *The results of inspections in the previous year are evaluated in terms of achievements versus the human resources used, in order to modify the forthcoming inspection programs*

Result with lights and shadows, since approximately 50% of the Agencies get a feedback from the audit results of the previous year and the other 50% of the Agencies which do not

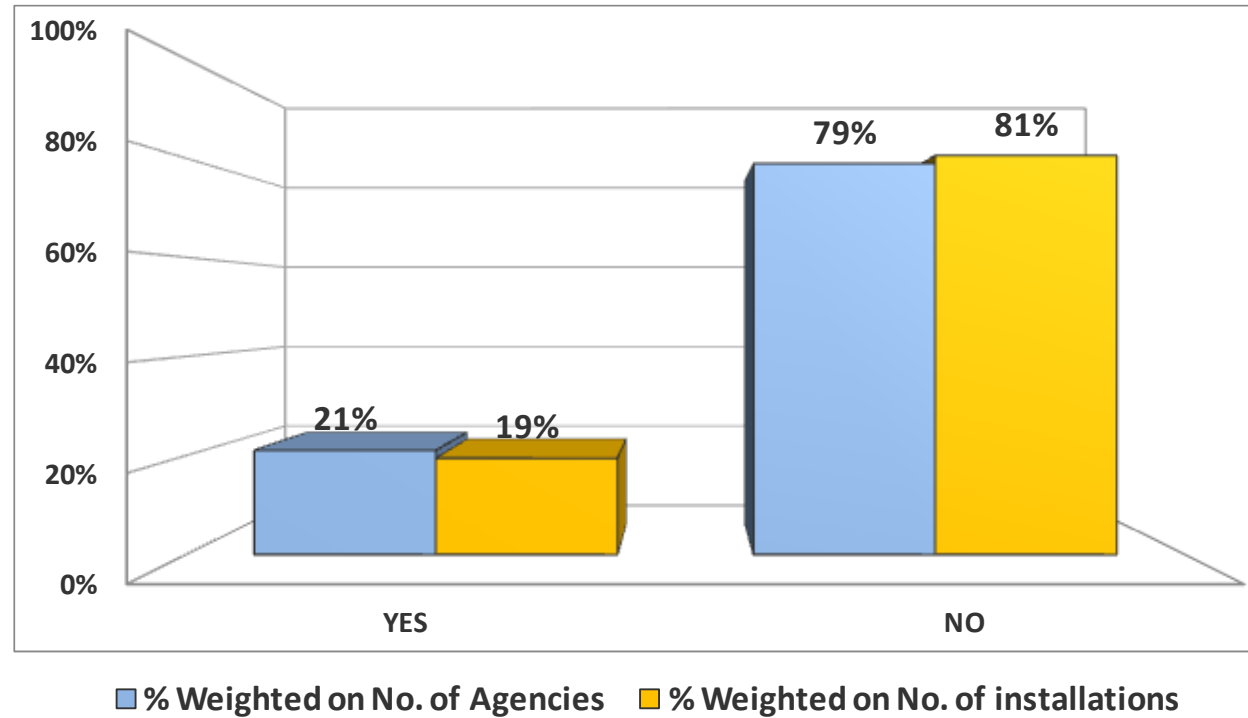


# 3. Audit execution times

(Including the preparation, running and reporting phases)

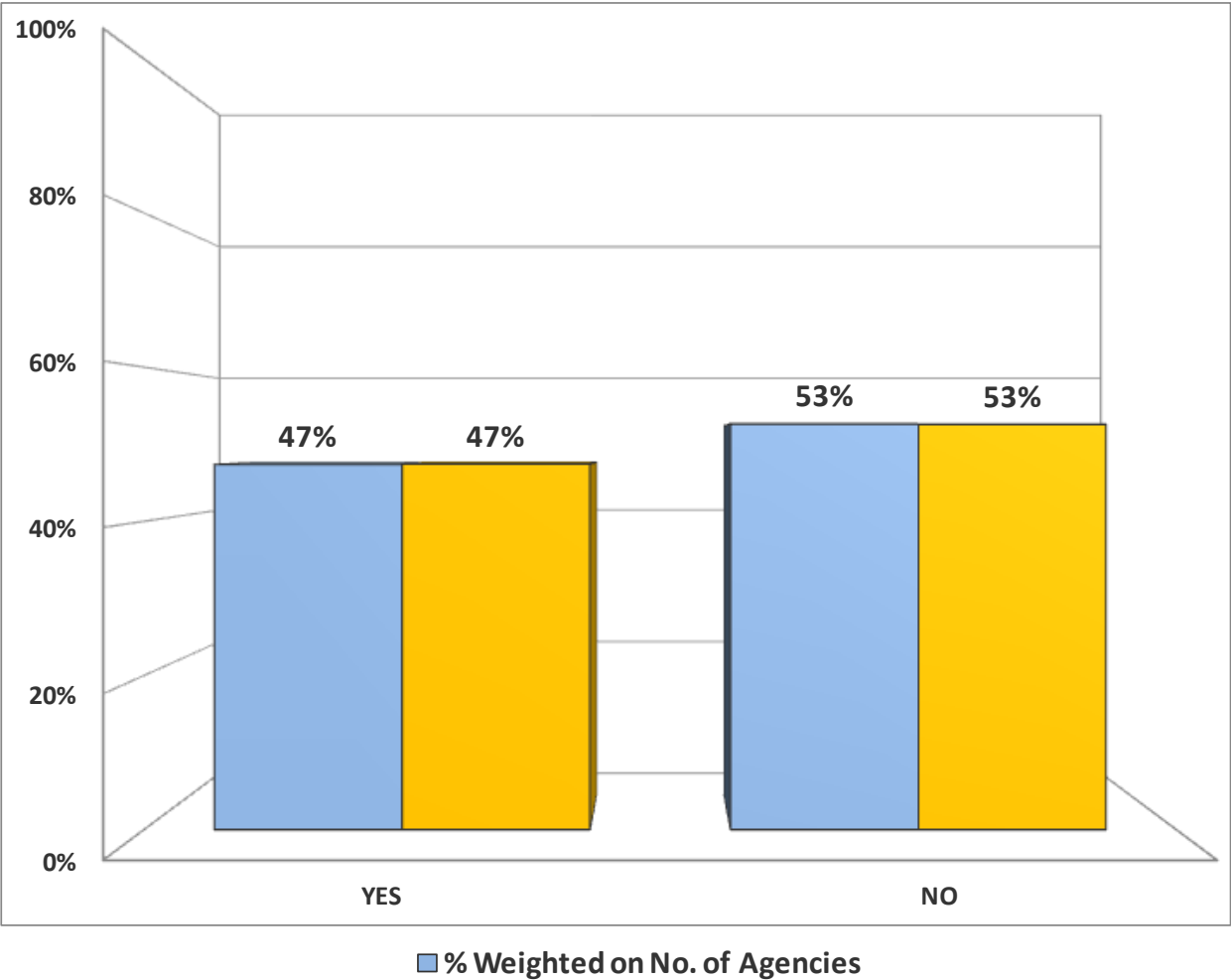
### **3.1** *The duration of an inspection is defined in the annual programme*

For the majority of Agencies and installations the duration of inspections is considered during the annual programme.



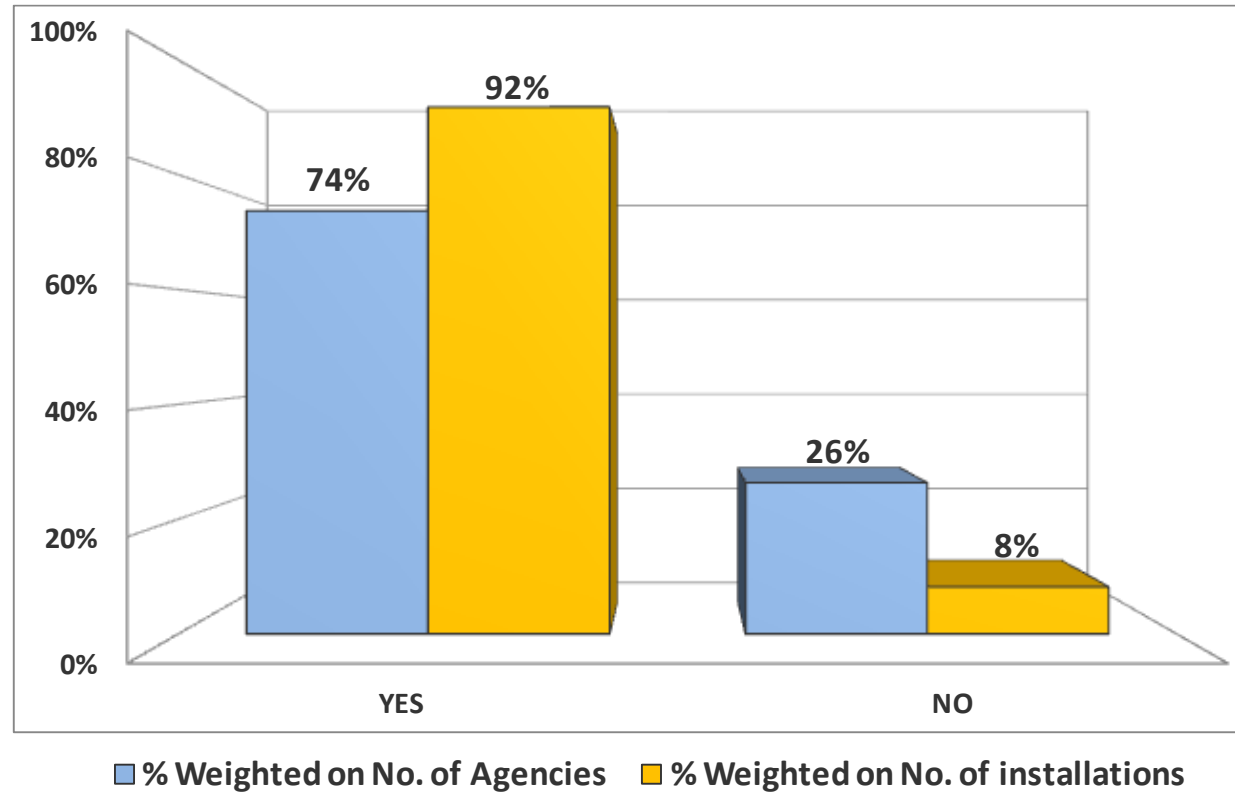
**3.2** *The duration of an inspection is determined on the basis of available resources*

The duration of audits is based on the characteristics of the installation and not on the availability of resources



### 3.3 *The duration of an inspection is defined on the basis of the authorization*

In most cases the authorization is used to identify the time required for the inspection



4. Any provisions / procedures /  
instructions issued by the  
Management of the  
participating Environmental  
Agencies

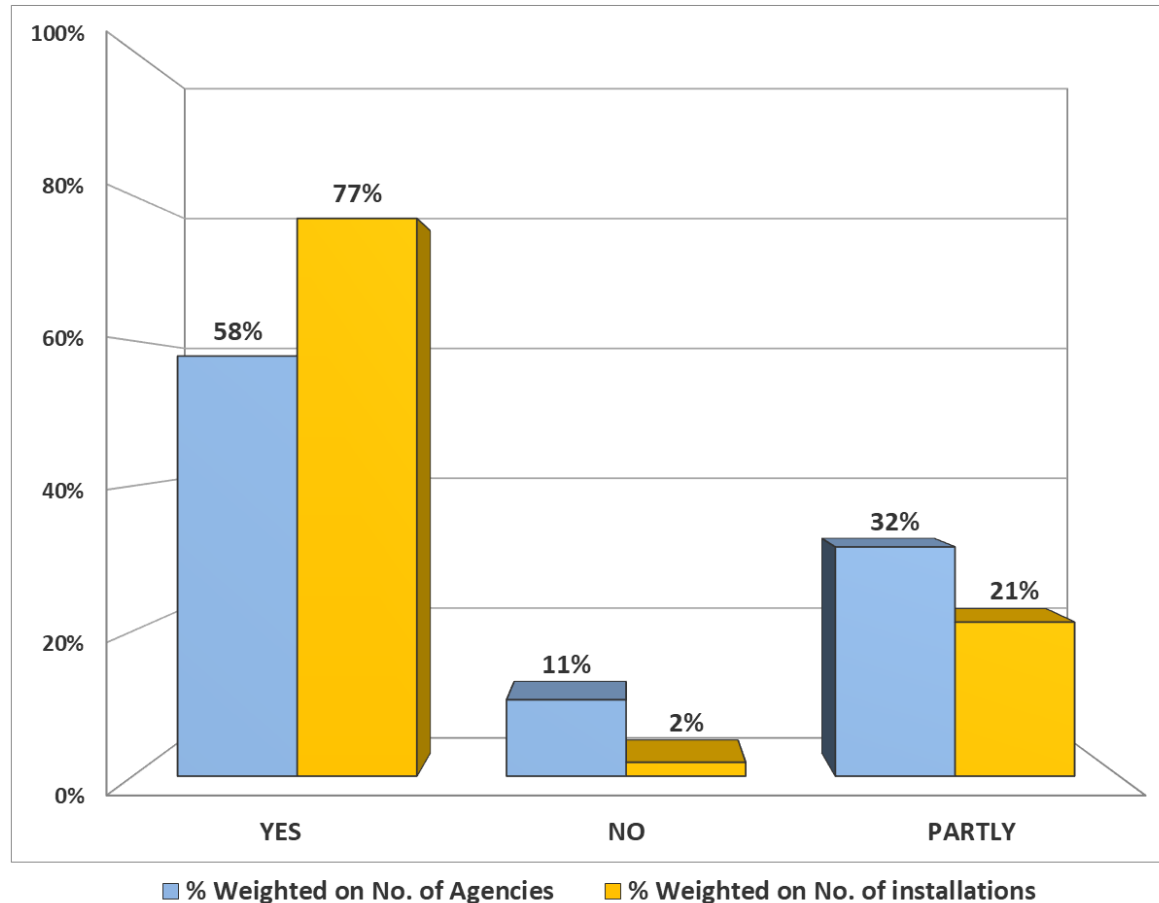
#### 4.1 *There are official procedures for the execution of the different inspection steps*

The results of the questionnaire (in the graph), define that in the majority of Agencies (58%) are present official procedures to draw the different phases of environmental inspections. From the point of view of the number of Installations involved, this percentage rises to 77%.

If we also consider the Agencies in which these procedures partially exist, we arrive at very high percentages of approximately 90% of Agencies and 98% of the Installations.

The presence of procedures constitutes an element of guarantee of homogeneity of the inspections on the one hand and, on the other hand, of transparency for the controlled Companied.

All the Agencies responded to this question.





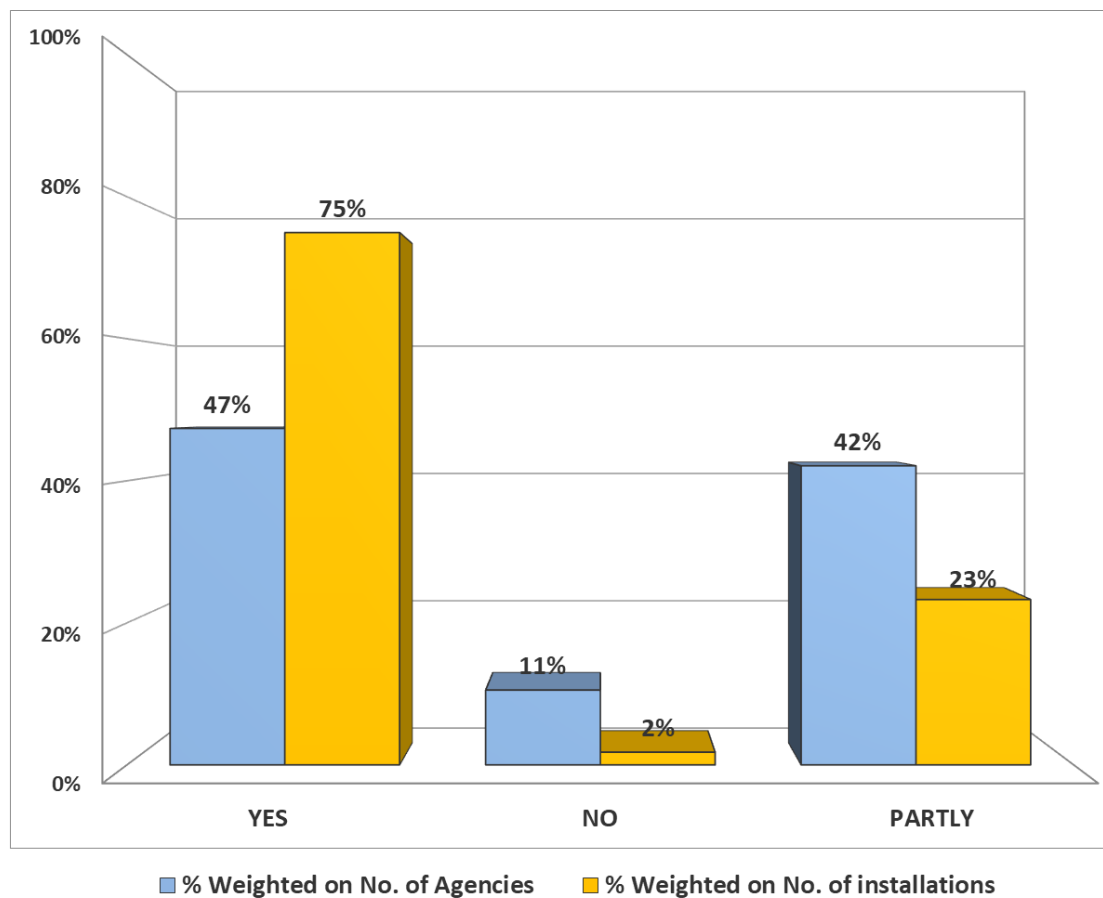
#### 4.2 *There are official procedures for the preparation of the final report of the inspections*

As can be seen from the results of the questionnaire shown in the graph, in 47% of the Agencies exist official procedures for the preparation of the final report of the inspection. From the point of view of the number of installations involved, this percentage rises to 75%.

If we also consider the Agencies in which these procedures are partially present, we arrive at very high percentages of approximately 89% of Agencies and 98% of the Installations.

The final report is considered to be of primary importance also due to the obligations introduced by art. 29-decies paragraph 5 of Legislative Decree no. 152/06.

All the Agencies responded to this question.

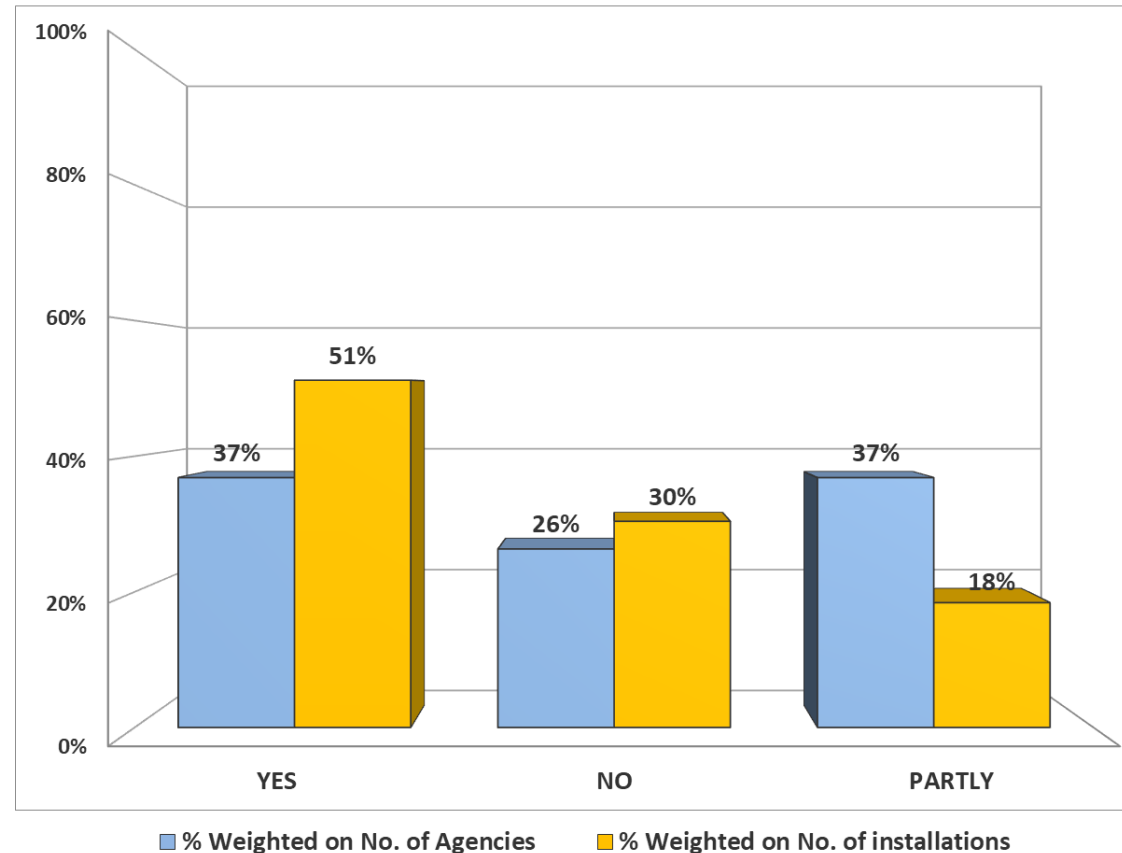


### 4.3 *There are official procedures for handling violations involving administrative sanctions*

As can be seen from the results of the questionnaire shown in the graph, only in about 37% of the Agencies exist official procedures for handling violations involving administrative sanctions. From the point of view of the number of installations involved, this percentage rises to over 51%. If we also consider the Agencies in which these procedures are partially present, you get to higher percentages of approximately 74% of Agencies and to over 69% of installations.

This results could be motivated by the fact that in some Agencies administrative penalties are addressed for a long time with established practices and, frequently, using dedicated forms, without defining a specific procedure.

All the Agencies responded to this question.

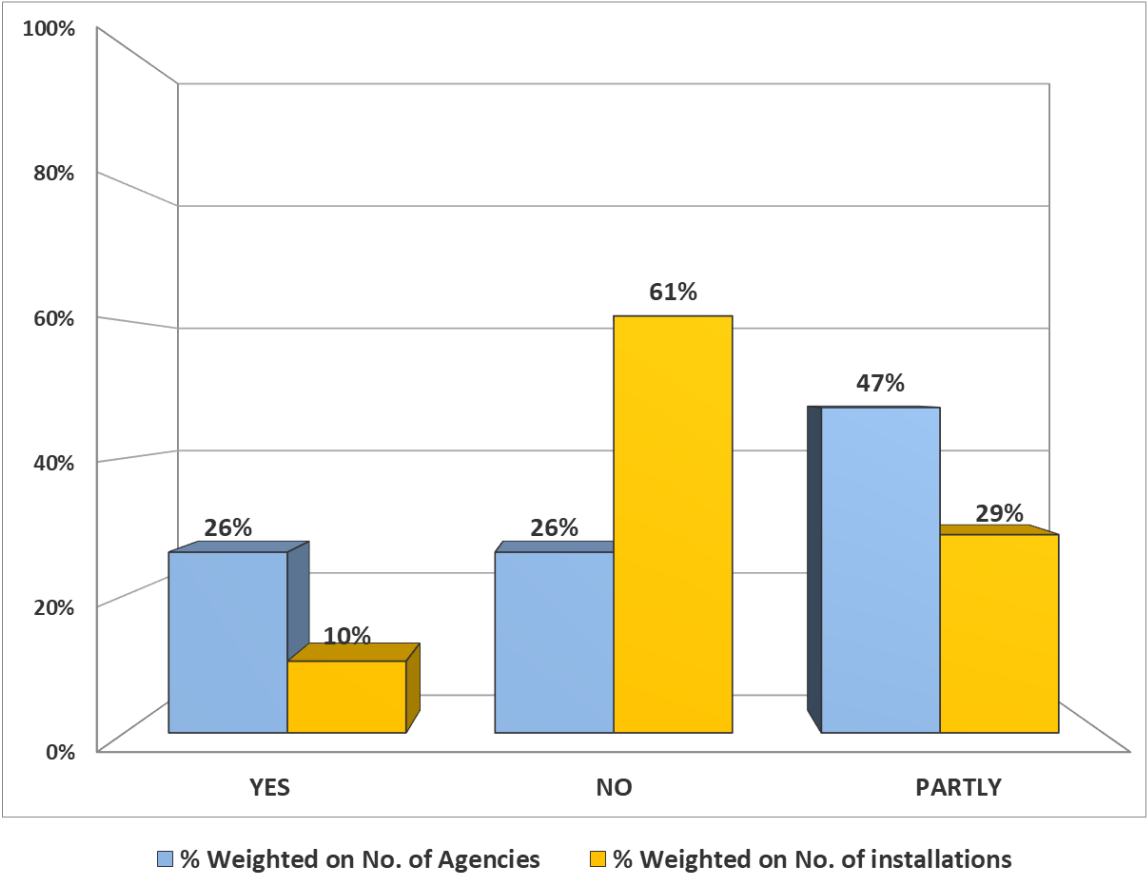


**4.4** *There are official procedures for handling violations involving criminal sanctions*

As can be seen from the results of the questionnaire shown in the graph, only in 26% of the Agencies exist official procedures for the preparation of the final report of the audit. From the point of view of the number of Installations involved, this percentage drops to 10%.

If we also consider the Agencies in which these procedures are partially present, you get to higher percentages of about 73% of Agencies and 39% of the Installations.

The situation described could be motivated by several factors. First, the presence in some Agencies of Official Criminal Police (OCP) that for all matters refer directly to the Penal Code Procedures. In other cases, despite not having staff with qualifications of OCP, criminal sanctions are likely to be addressed for a long time with established practices and, frequently, with the dedicated forms, without defining a specific procedure. All the Agencies responded to this question.



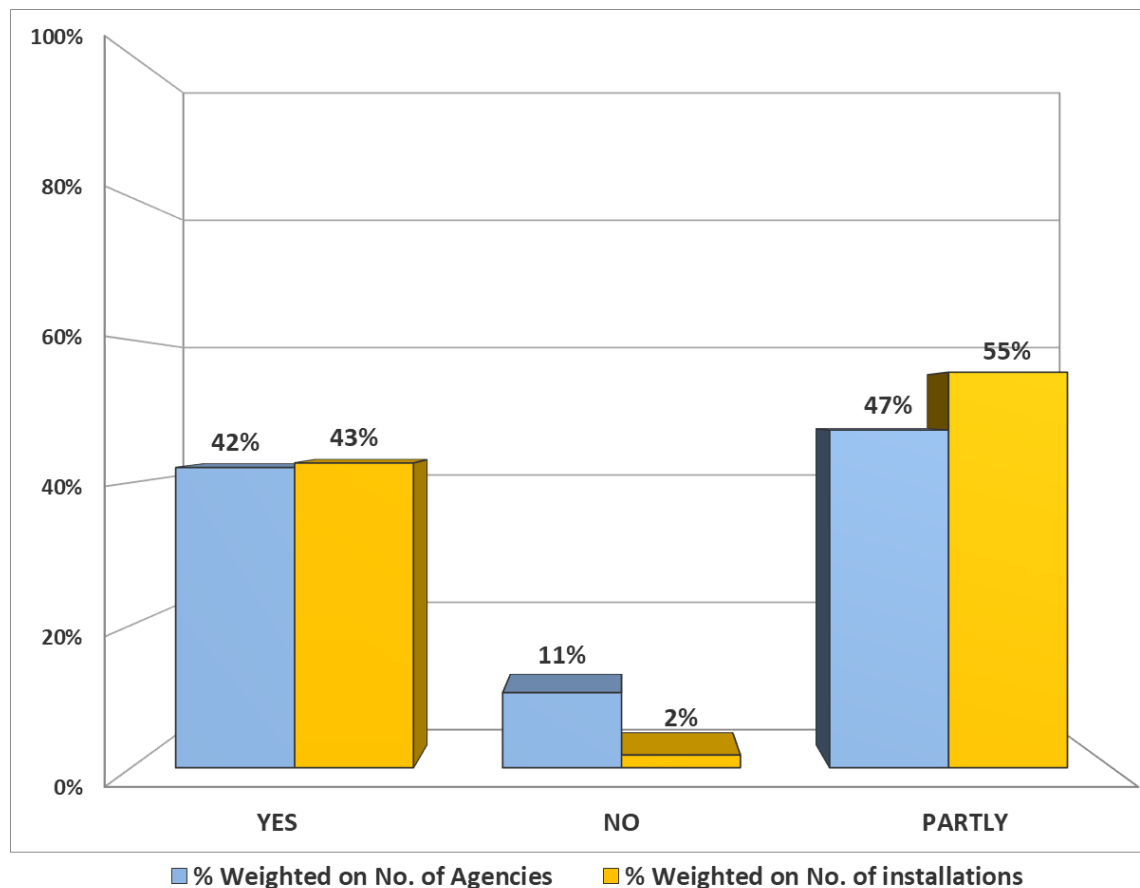
#### 4.5 Courses of training / update of the inspection staff are envisaged as significant regulatory changes (eg. Eco-criminal law) occur

As can be seen from the results of the questionnaire shown in the graph, in 42% of the Agencies training courses for inspectors are provided. From the point of view of the number of Installations involved, this percentage is 43%.

If we also consider the Agencies in which these procedures are partially present, we arrive at very high percentages of approximately 89% of Agencies and 98% of the Installations.

An wider assessment of this results can be made also considering the results of the following questions 4.6 and 4.7.

All the Agencies responded to this question.



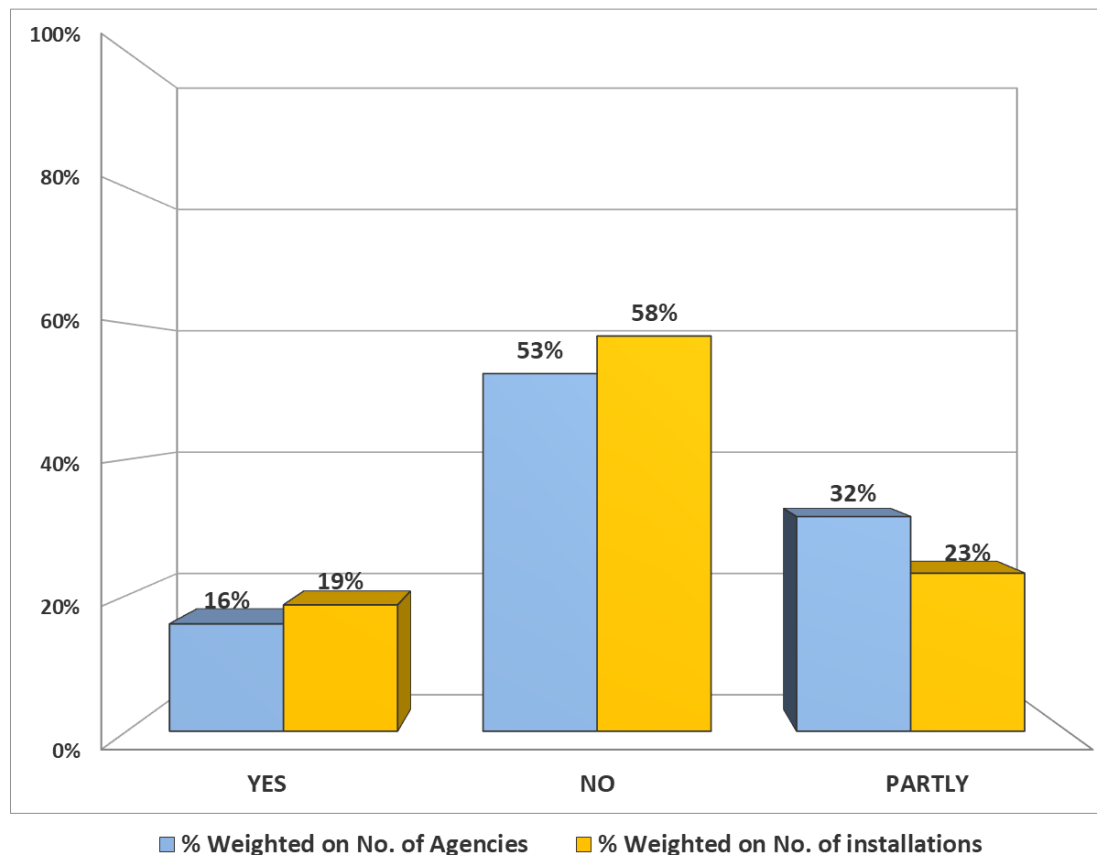
#### 4.6 *There is a plan for continuous training of the inspection staff*

As can be seen from the results of the questionnaire shown in the graph, only 16% of the Agencies provide continuous training for inspectors. From the point of view of the number of Installations involved, this percentage is 19%.

Even if we consider the Agencies in which these continuous training are partially provided, the percentage of Agencies rises to 48% and of Installations rises to 42%.

It should be noted that this situation, which envisages the continuous training only in a minority of Agencies, constitutes a weakness of the system. This point has indeed assumed increasing importance both considering recent regulatory changes, also in terms of certification of prescriptions for the "decriminalization" of specific environmental crimes, and considering the complexity of authorizations that are increasingly fitted on the single installation.

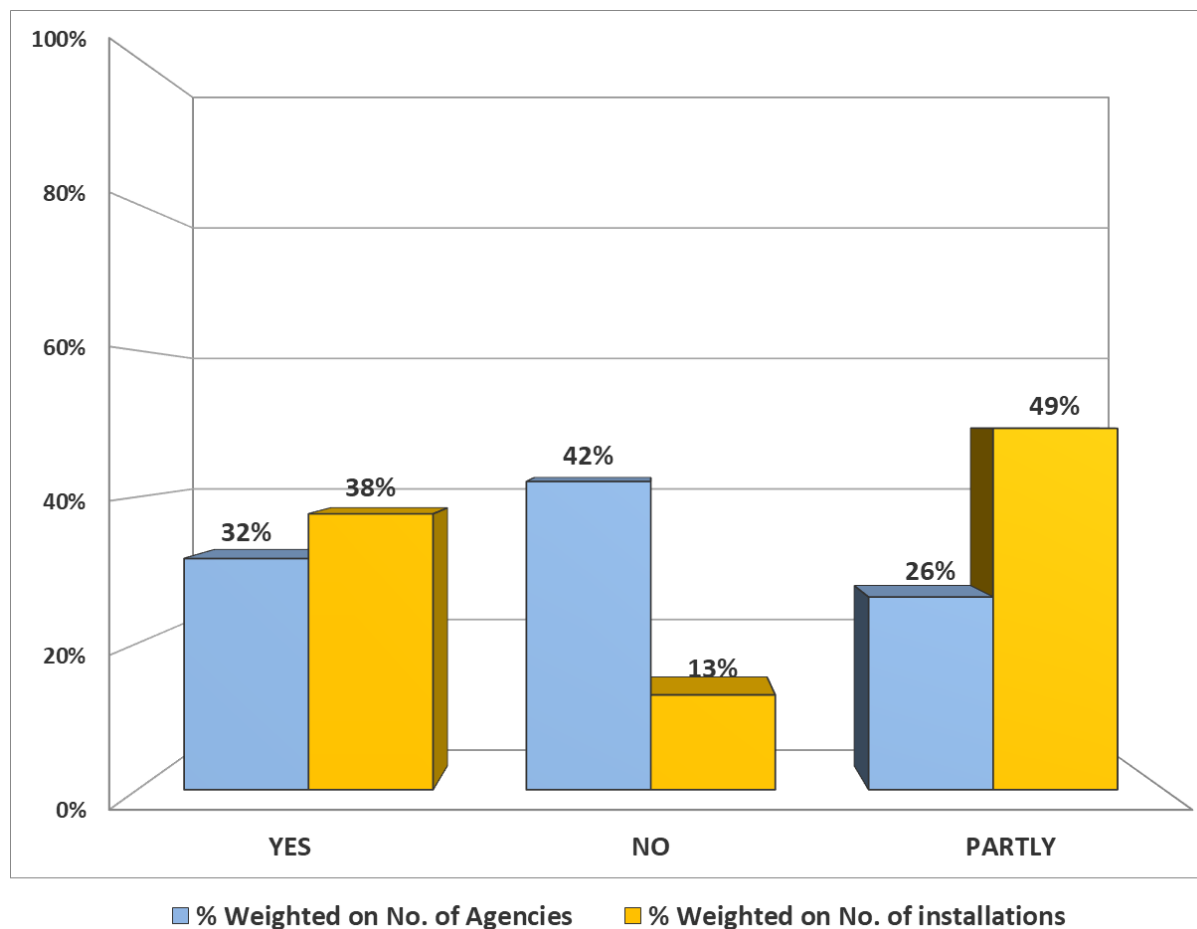
All the Agencies responded to this question.



#### ***4.7 An introductory training for new inspectors is envisaged***

As can be seen from the results of the questionnaire shown in the graph, only in 32% of the Agencies provide for introductory training courses for inspectors. From the point of view of the number of Installations concerned, this percentage is 38%. Even if we consider the Agencies in which such a training is partially provided, you arrive at percentages of 58% of Agencies and 87% of Installations. In this case the percentages rise compared to the previous question 4.6 inherent continuous training, with a strong presence of Agencies in which the training is provided only in part. This situation is probably due to the need to enable new recruits to carry out major tasks in terms of technical and administrative capacities.

All the Agencies responded to this question.

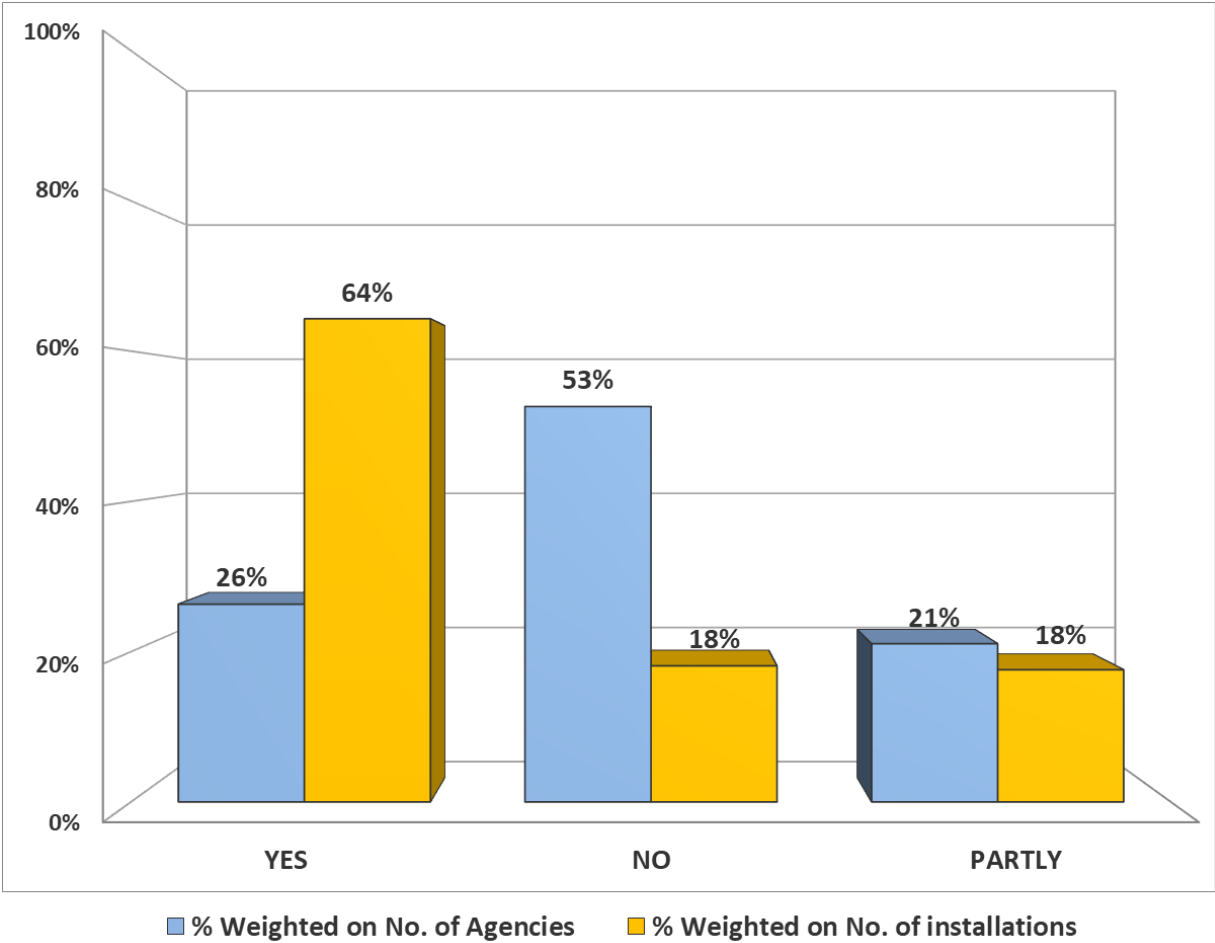


**4.8 Inspection activities are included in a official quality management system**

As can be seen from the results of the questionnaire shown in the graph, only 26% of Agencies included audit activities in the official quality management system. From the point of view of the number of Installation concerned, this percentage is 64%.

If you look at the Agencies where such integration is only partial, you arrive at percentages of 47% of Agencies and 82% of Installations. 53% of Agencies does not to adopt quality assurance systems for audits. This situation could be due to an uneven spread of quality management procedures in the National Network System of Agencies.

All the Agencies responded to this question.

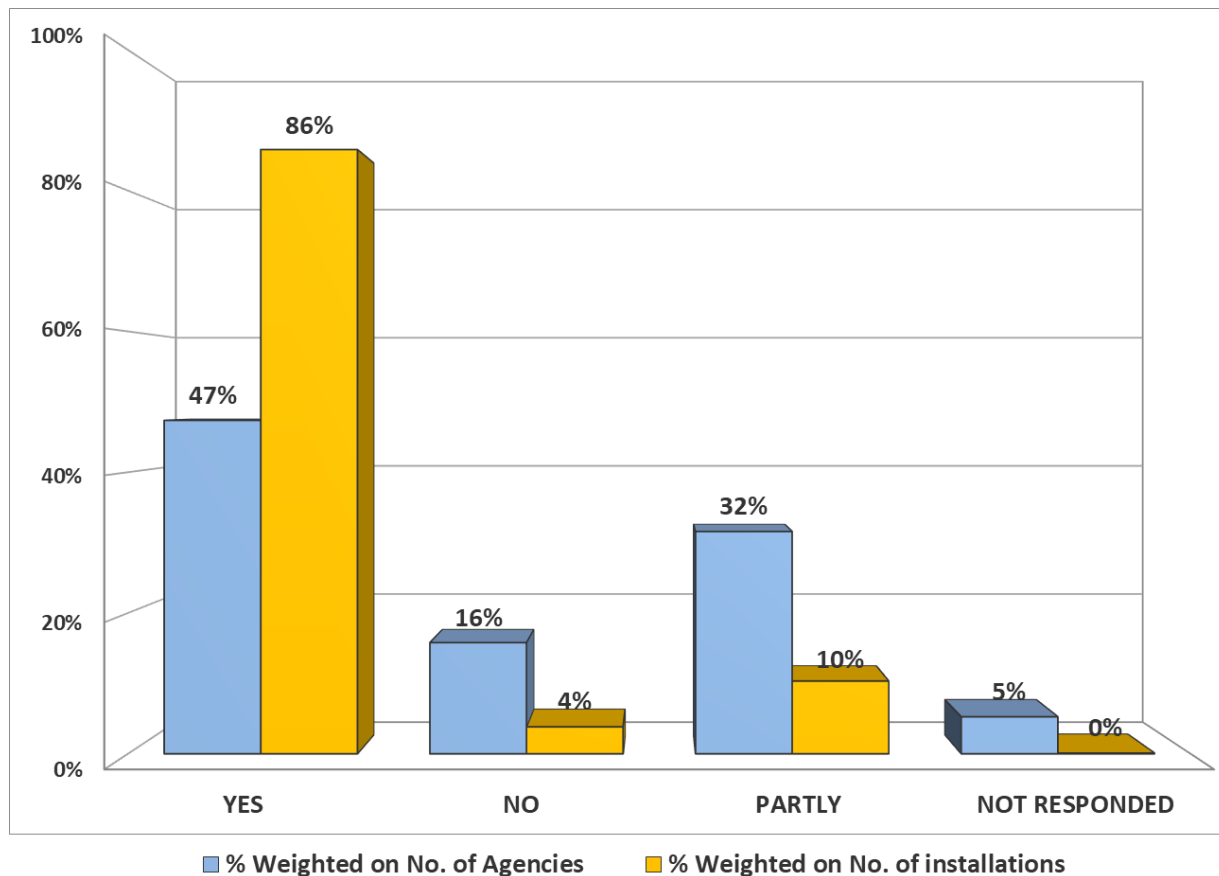


#### *4.9 Update of the procedures is envisaged when significant regulatory changes (eg. Eco-criminal law) occur*

As can be seen from the results of the questionnaire shown in the graph, in 47% of the Agencies updating of procedures is scheduled. From the point of view of the number of Installations involved, this percentage rises to 86%. If we also consider the Agencies in which these procedures exist only partially, we arrive at very high percentages of approximately 79% of Agencies and 96% of the Installations.

It is clear as the importance of updating/upgrading the procedure is widely perceived in the National Network System of Agencies.

This question was answered by almost all (95%) of the Agencies that received the questionnaire.

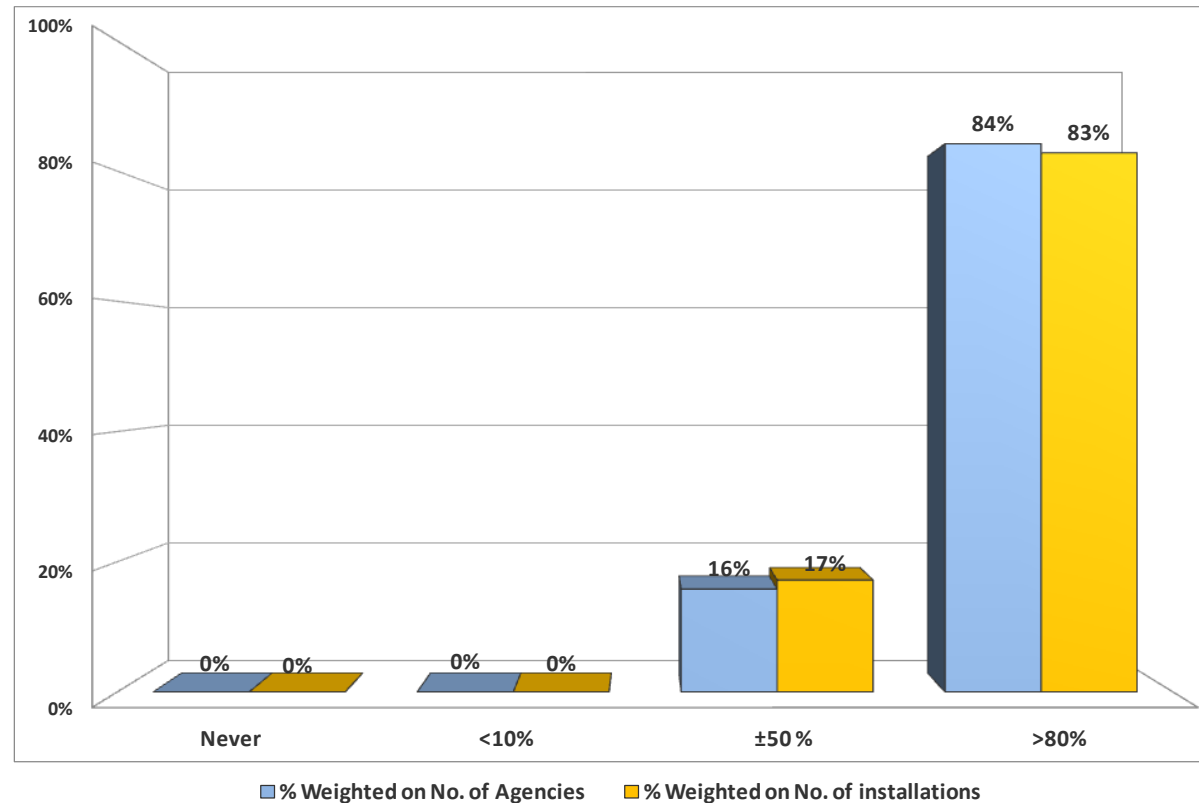




## 5. Transmission and evaluation of the plant operator's monitoring and self-control data

### 5.a 1 *Transmission and evaluation of the plant operator's monitoring and self-control data*

The graph shows a rather uniform behavior by the Competent Authorities: in more than 90% of cases the mode of data transmission by the operator are defined already in the authorization.

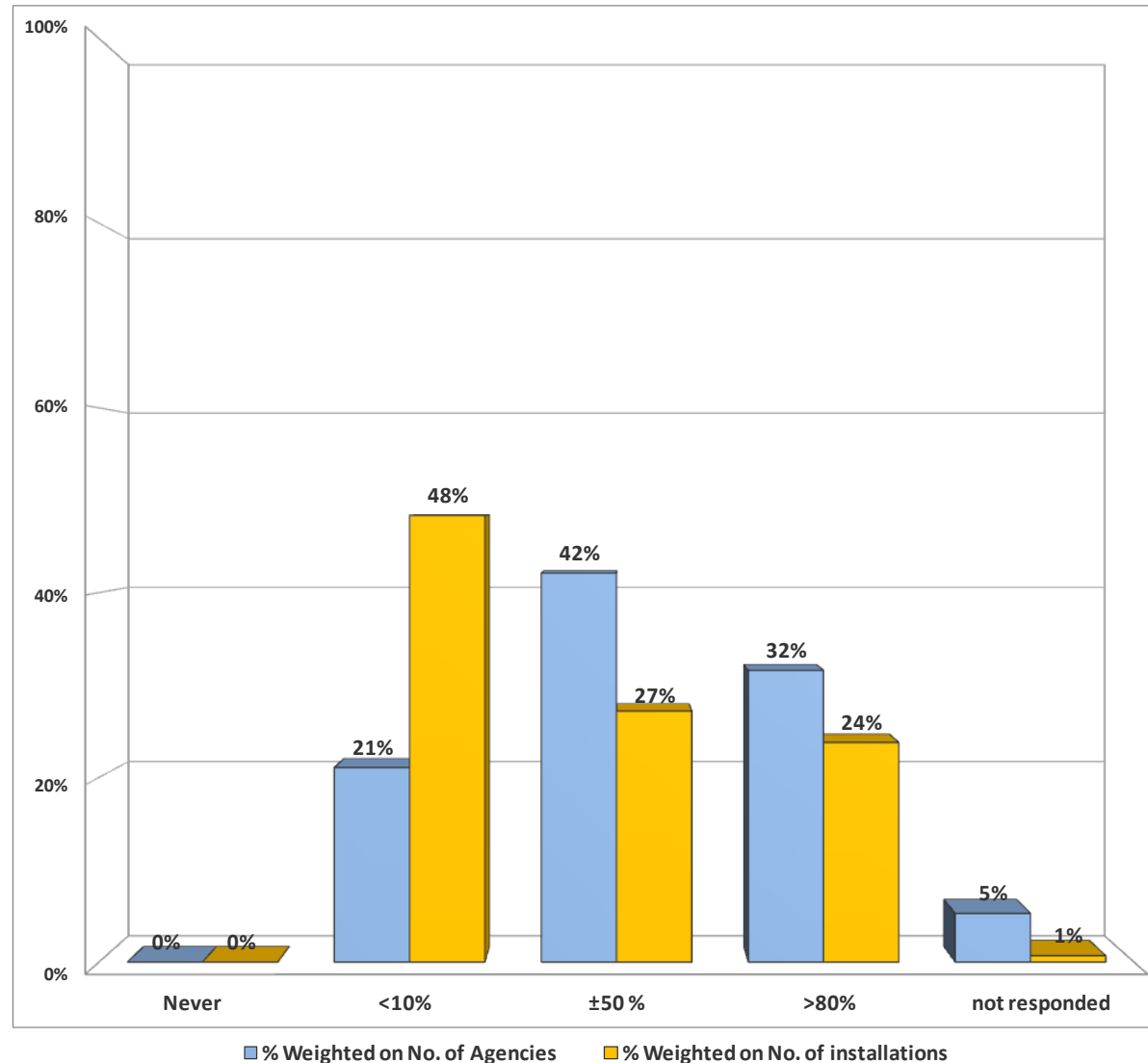


### 5 a.2 *The operator is obliged to transmit also the analytical certificates for monitoring and self-control of provided data*

A third of the Agencies regularly receives analytical certificates for self-control sent by installations in its territory, representing a quarter of the total.

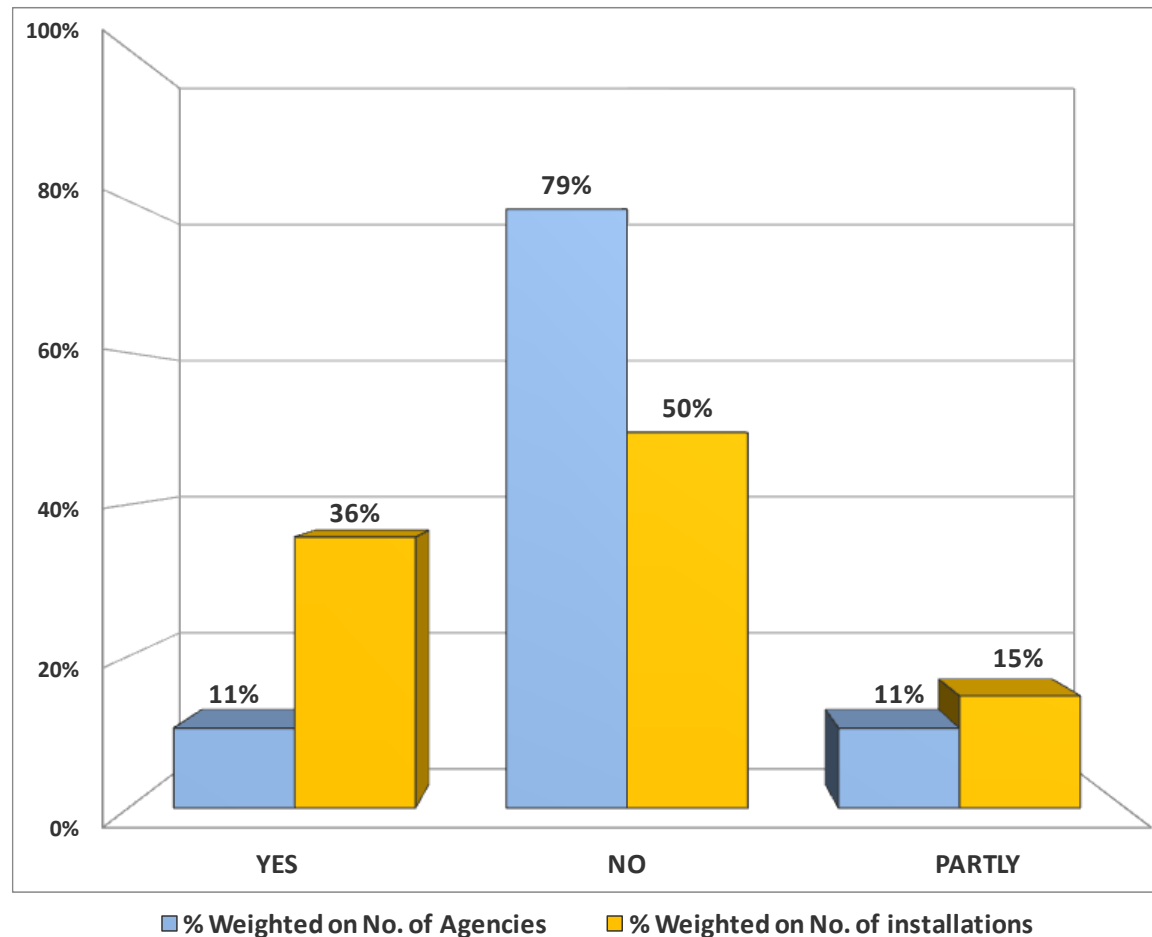
In other cases, the requirement of transmission is present in the authorization measures in low and medium percentages, sometimes with reference to particular situations (eg. steady operation of the installations).

In particular, almost half of the provisions obliges only sporadically transmission: fall into this category, also those provisions related to facilities subject to State jurisdiction. An Agency did not answer the question.



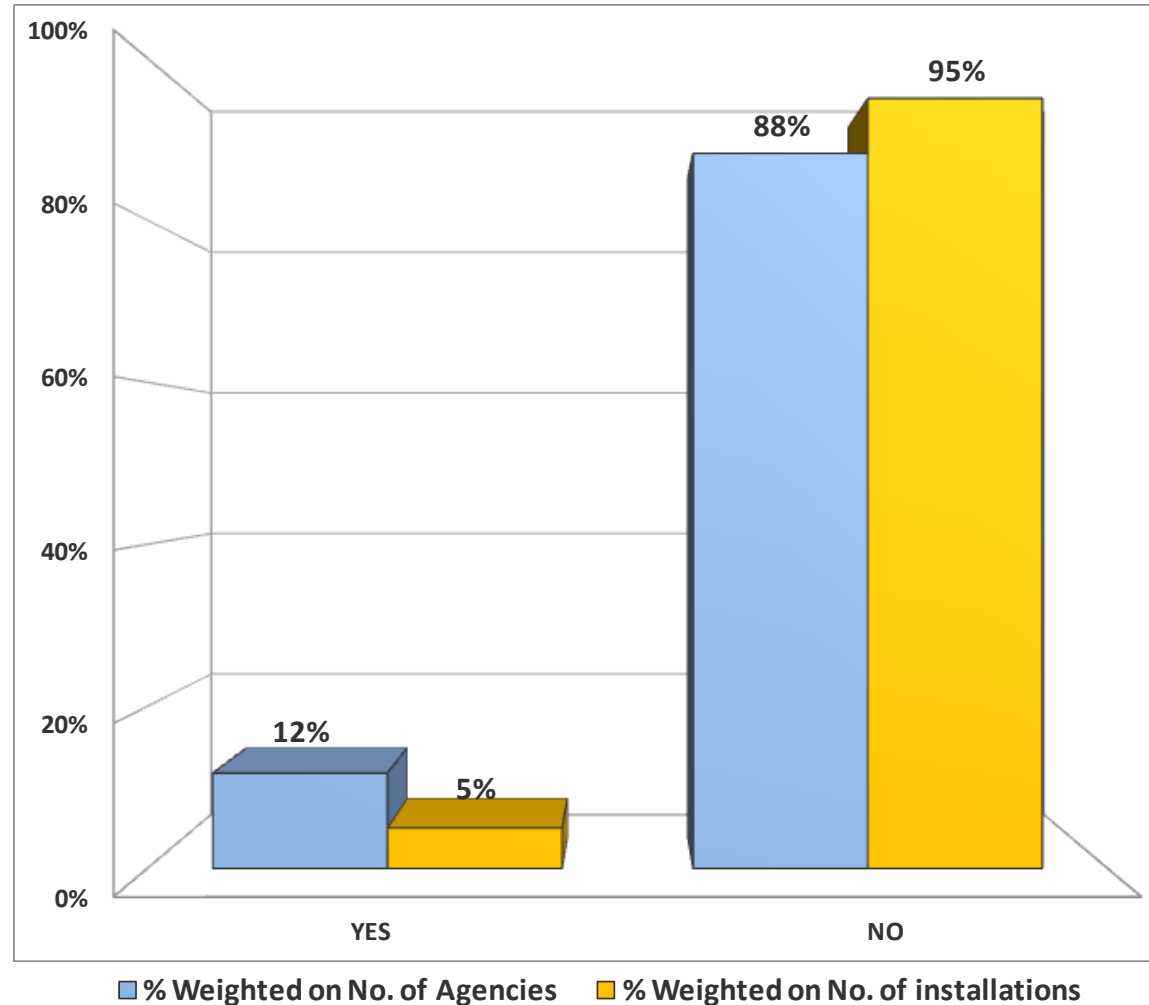
**5a.3** *There is an Agency's/Competent Authority IT platform where the operator enters directly the monitoring and self-control data*

Only in two regions it is now present a platform for direct data entry of self-monitoring by the operators, while in most of the others, in whose territory insists half of Installations with EIA, does not exist. In two cases the platform is dedicated to the data entry relating only for certain types of installations.

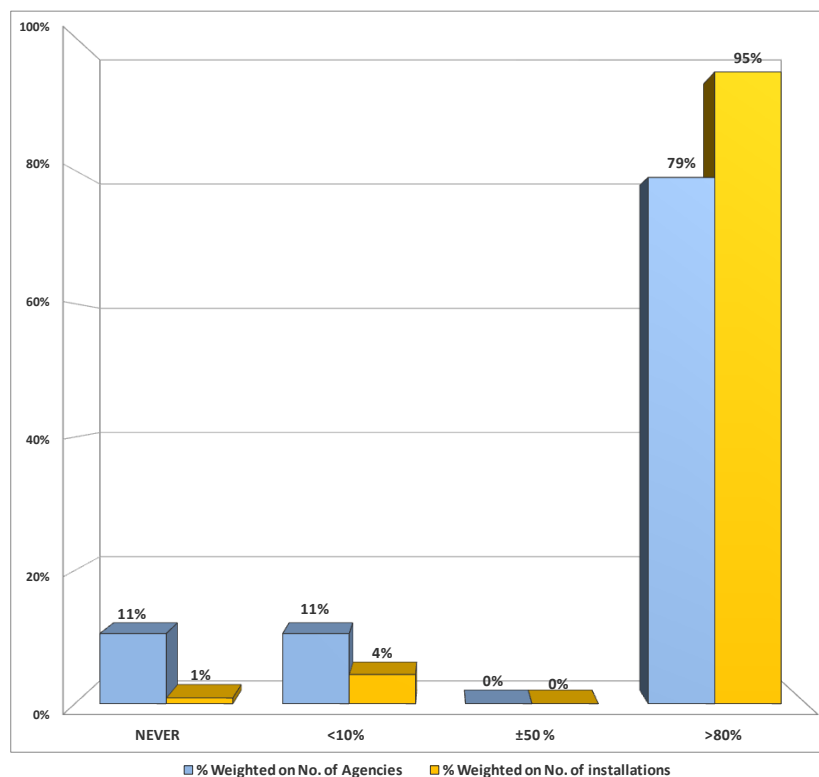


**5a.4** *In case of a negative answer to the question 5a.3, the Agency/Competent Authority uses a database where monitoring and self-control data provided by the operator are transcribed*

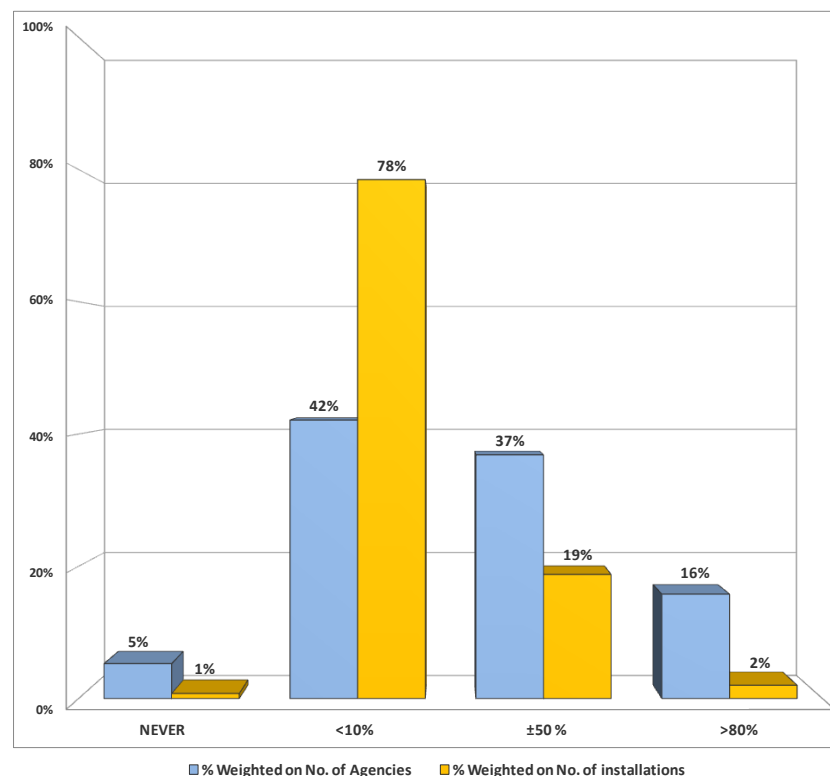
Only two of the regions where there is no platform, referring to the previous question 5a.3, are equipped with a database in which data is entered by ARPA/Competent Authority.



**5b.1** *The evaluation of the monitoring and the self-control data of the operator is conducted during the routine inspection.*



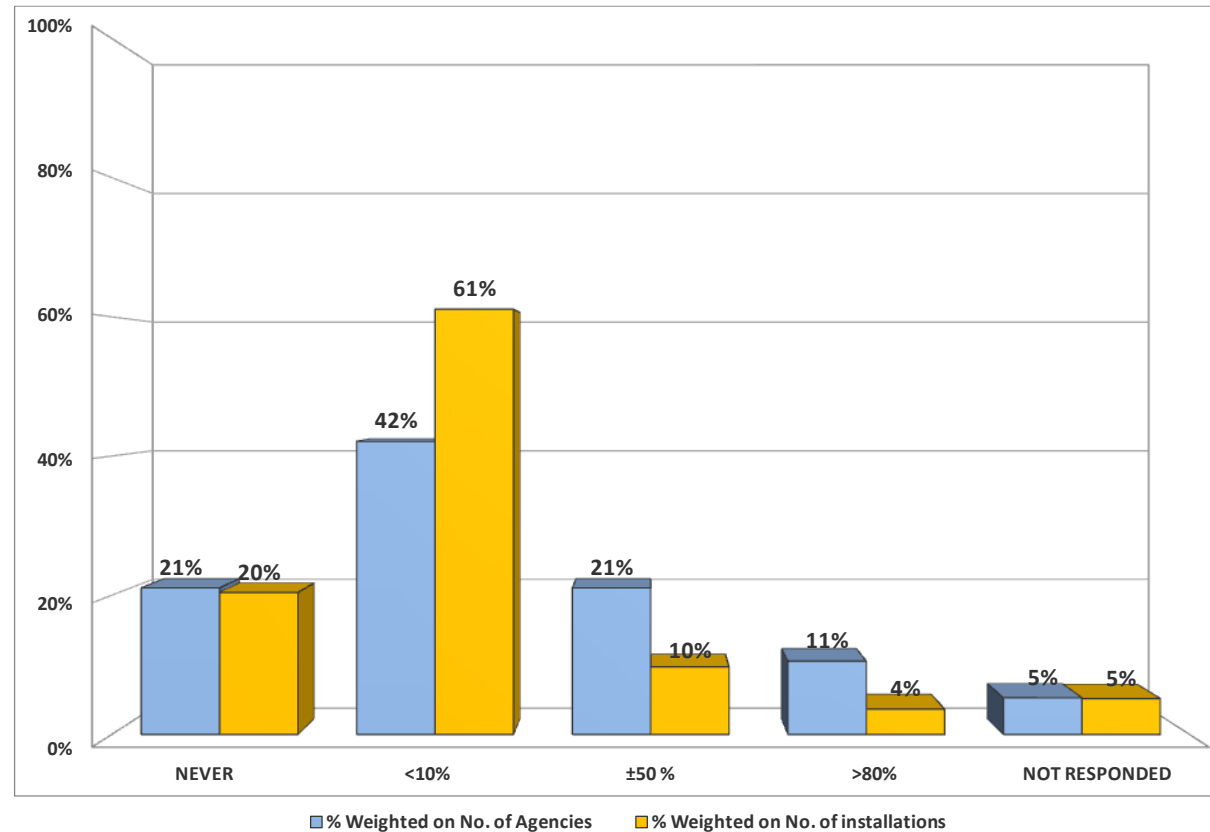
**5b.2** *The evaluation of the monitoring and self-control data of the operator is conducted annually regardless routine inspection*



The data evaluation is performed directly during the audit by most agencies; at this stage the data for the 95% of Installations are then evaluated. Two agencies carry out the assessment only sporadically during audit, while other two Agencies never do it at this stage. In the case the routine audit has not been carried out in the year, the Agencies tend not to check the self-control data received, if not in a sporadic manner

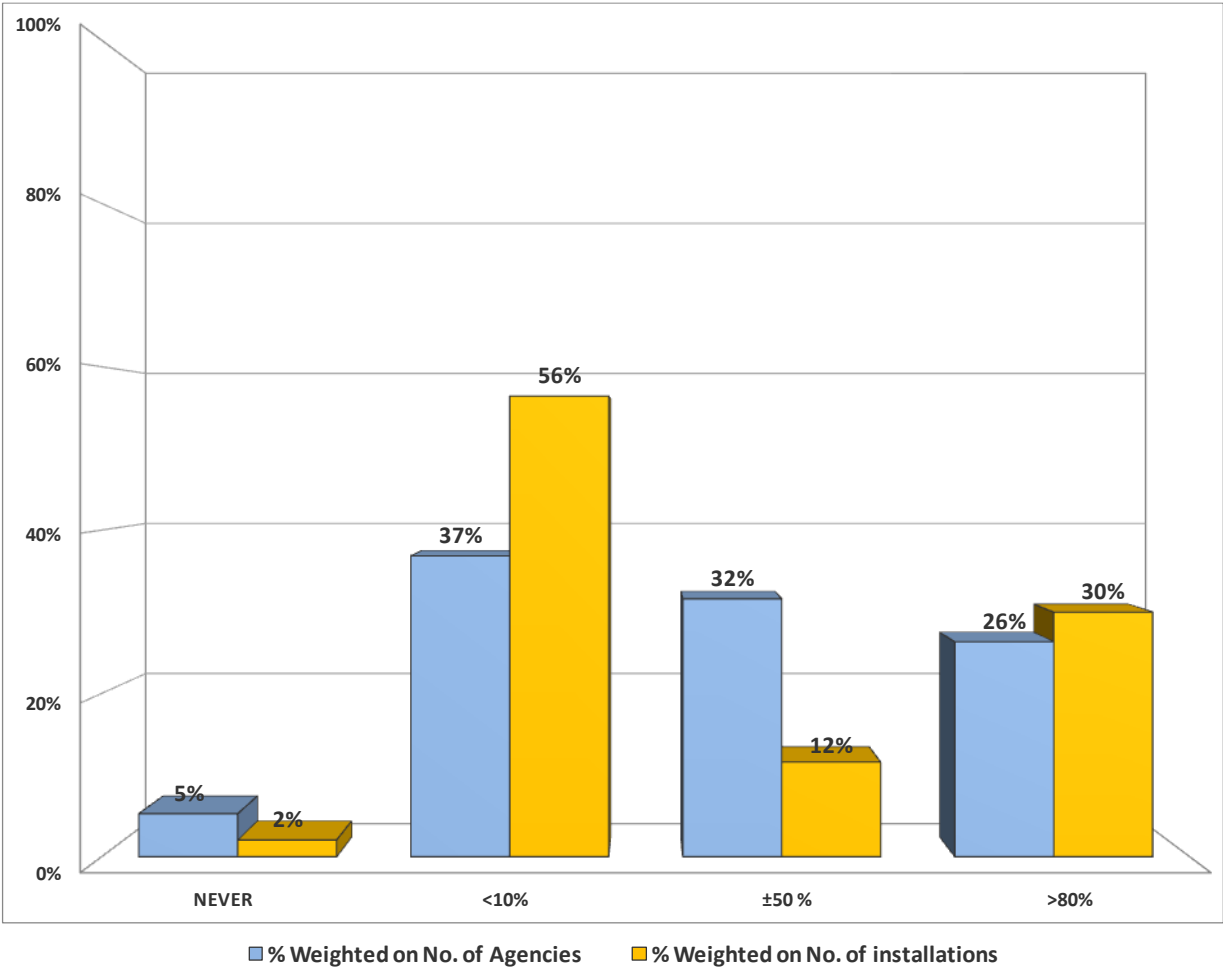
**5b.3** *The self-monitoring data assessed outside of the routine inspections (point 5b.2) give rise to a special report by ARPA*

In cases where the evaluation of the data is conducted outside of the routine inspection, the summary report of data evaluation is expected only occasionally, for example in the case of particularly critical results of the data evaluation.



**5b.4** *With regard to the monitoring data of each installation, the percentage at which the Agency carries out correctness verification*

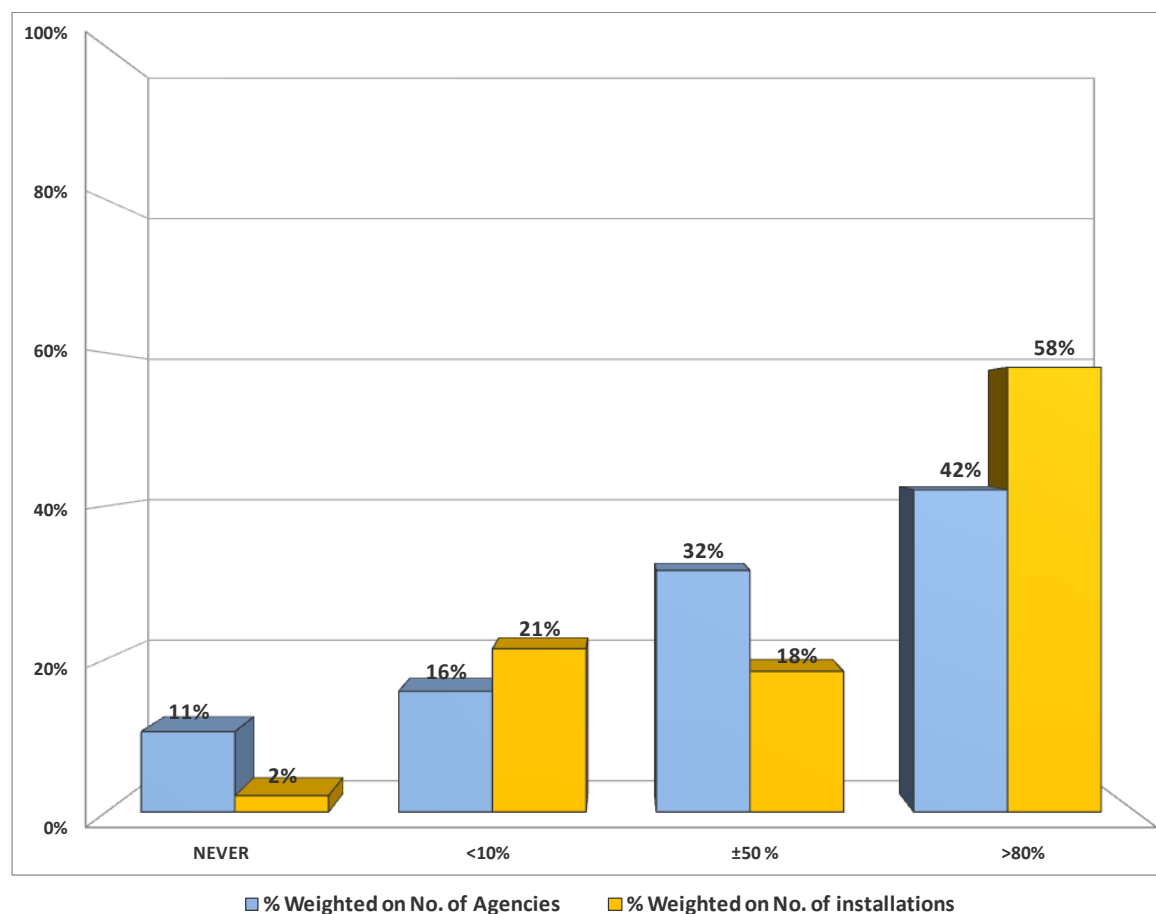
After receiving the monitoring data, a quarter of the Agencies verifies correctness systematically, while most of the others do it occasionally.



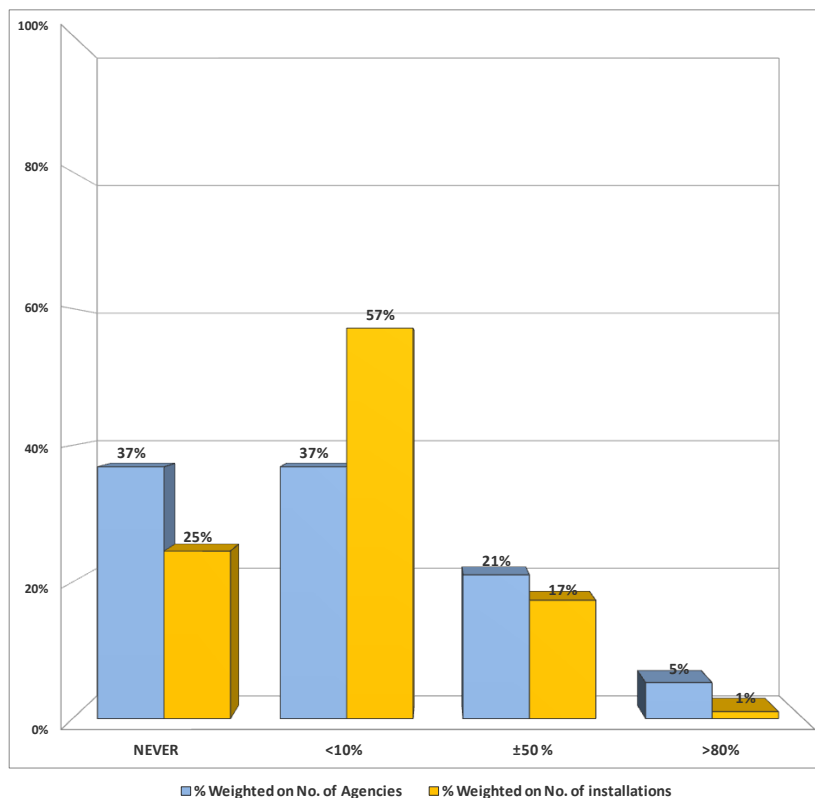


**5b.5** *Tools, procedures and methods, used by the operator for the collection and evaluation of their own self-controls, are controlled and evaluated*

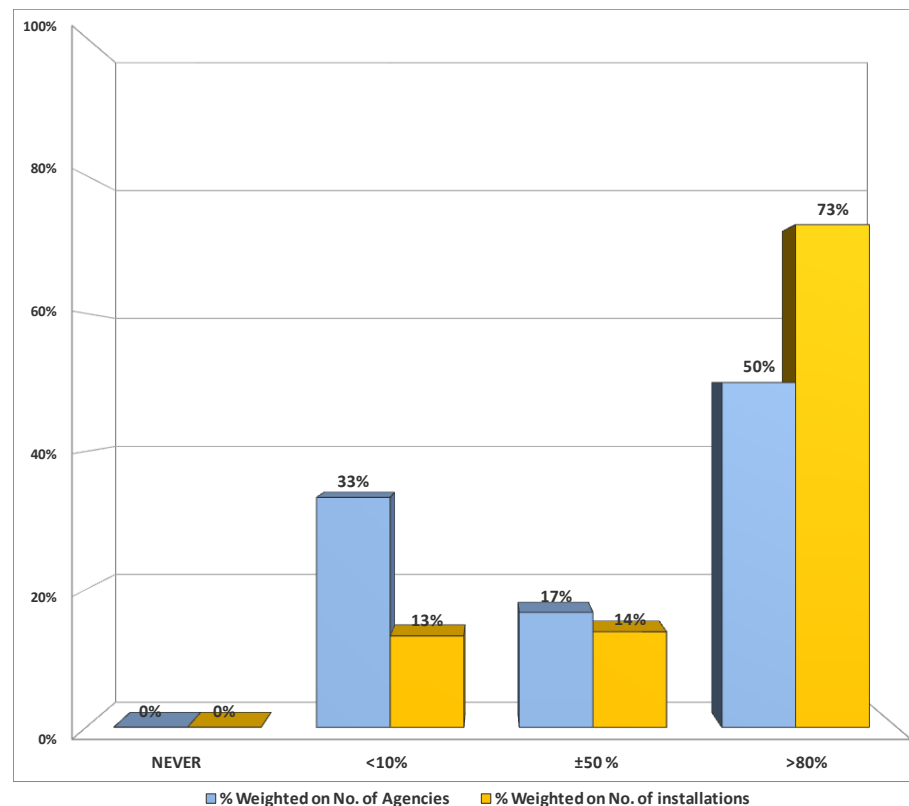
The tools, procedures and methods used by operators for self-monitoring are subject to verification by the 42% of the Agencies, in whose territory insists almost 60% of installations; in other cases the verification is mostly conducted occasionally. Two Agencies, referred to 2% of Installations do not perform this verification.



**5b.6** *The participation of laboratory to which the operators commit its self-controls are envisaged during installation inspections*



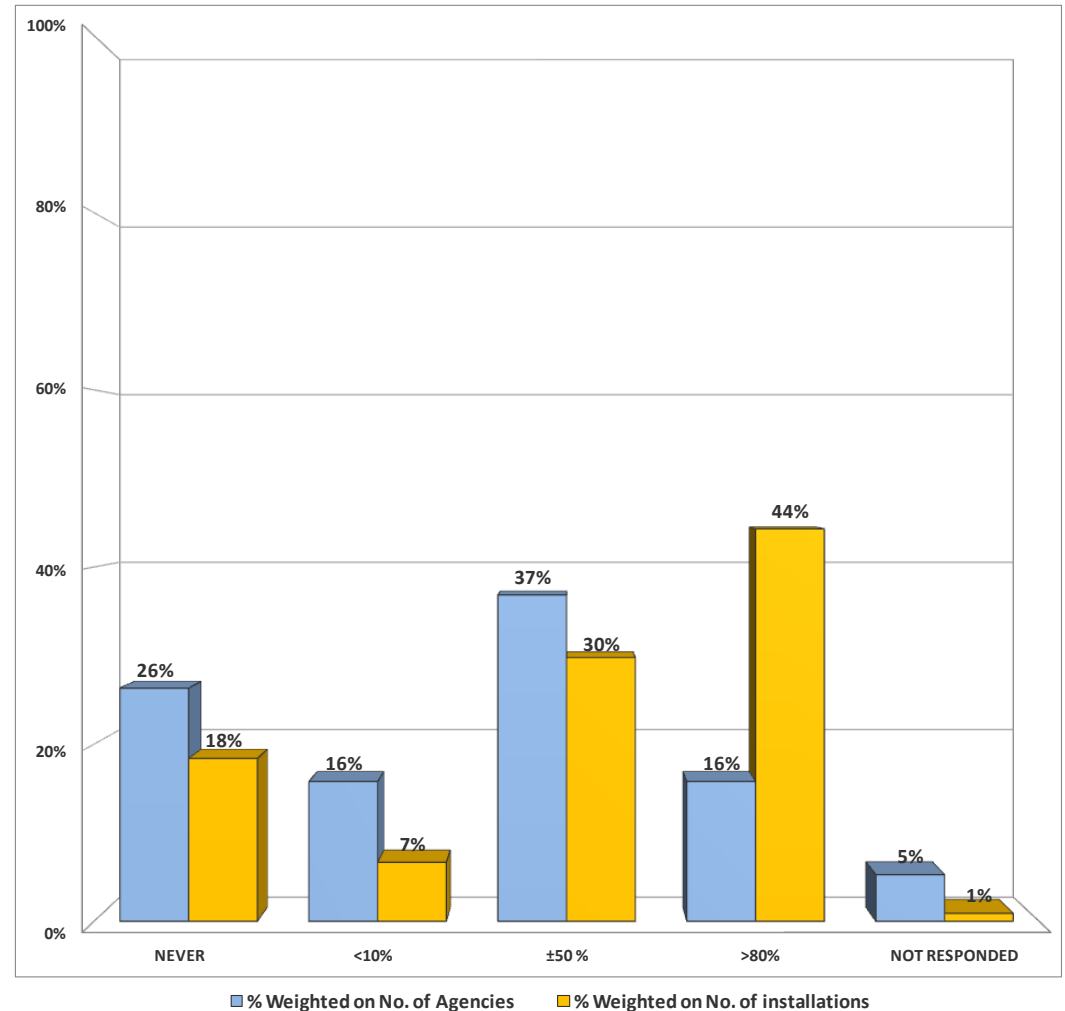
**5b.7** *In case of positive answer to the previous question 5b.6, specialist staff attends*



Most of the Agencies attend only occasionally audits conducted at the installations by the laboratory to which the operator commit the execution of self-controls, such as the emissions sampling or calibration checks of continuous monitoring systems, while a third of the Agencies never takes part in this type of verification; however, in cases where this occurs, there shall be attending preferably personnel specialized in the field of the specific control.

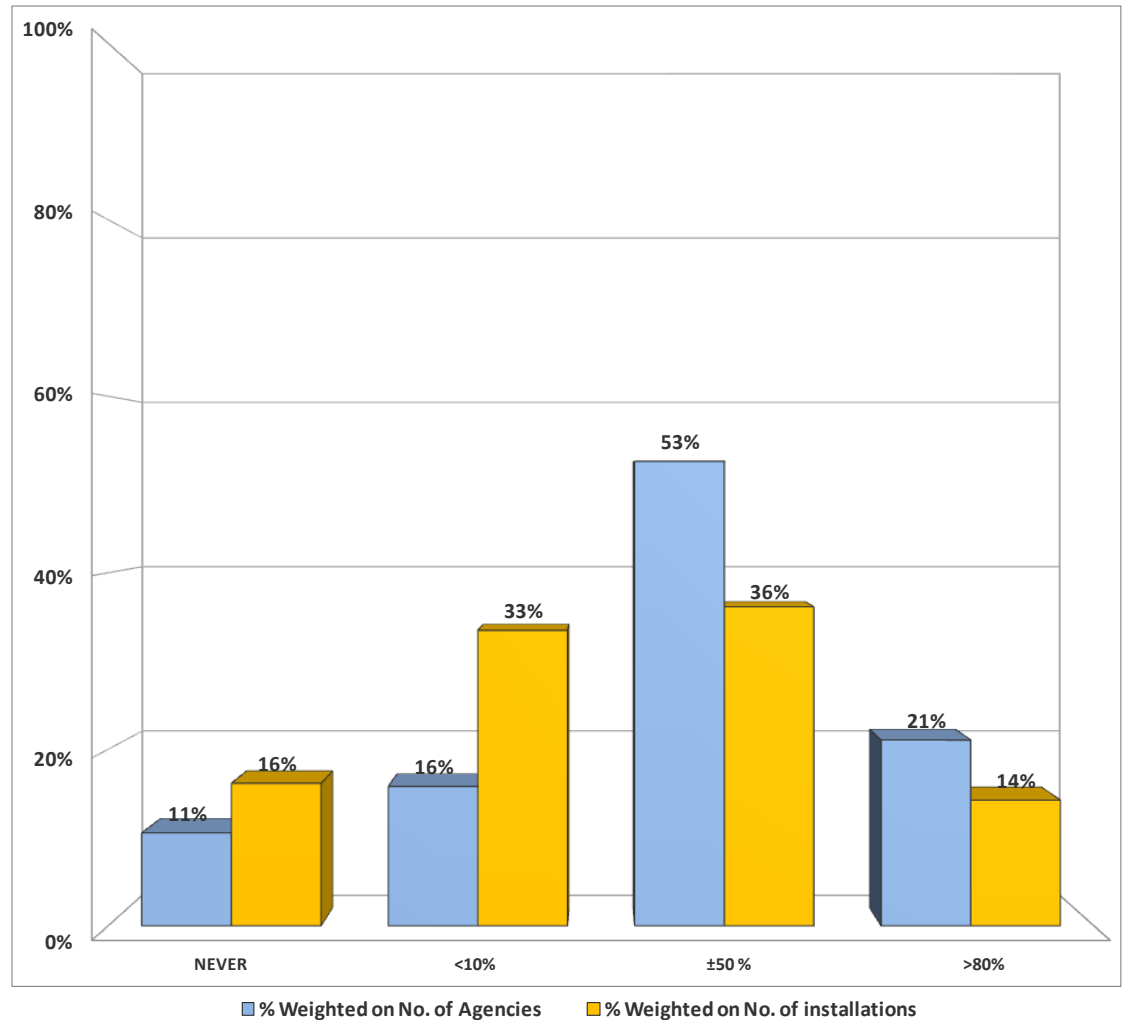
**5b.8** *The results of the monitoring and self-control data affect the planning of routine inspections*

The behavior of the Agencies is uneven: for a quarter of Agencies, their evaluation of the data has no effect on the planning of the next routine inspections, while 16% (which, however, refers to 44% of Installations) has always effect; the remaining Agencies evaluate it case by case. An Agency did not answer the question.



**5b.9** *The results of the evaluation of self-monitoring can trigger any non-routine inspections*

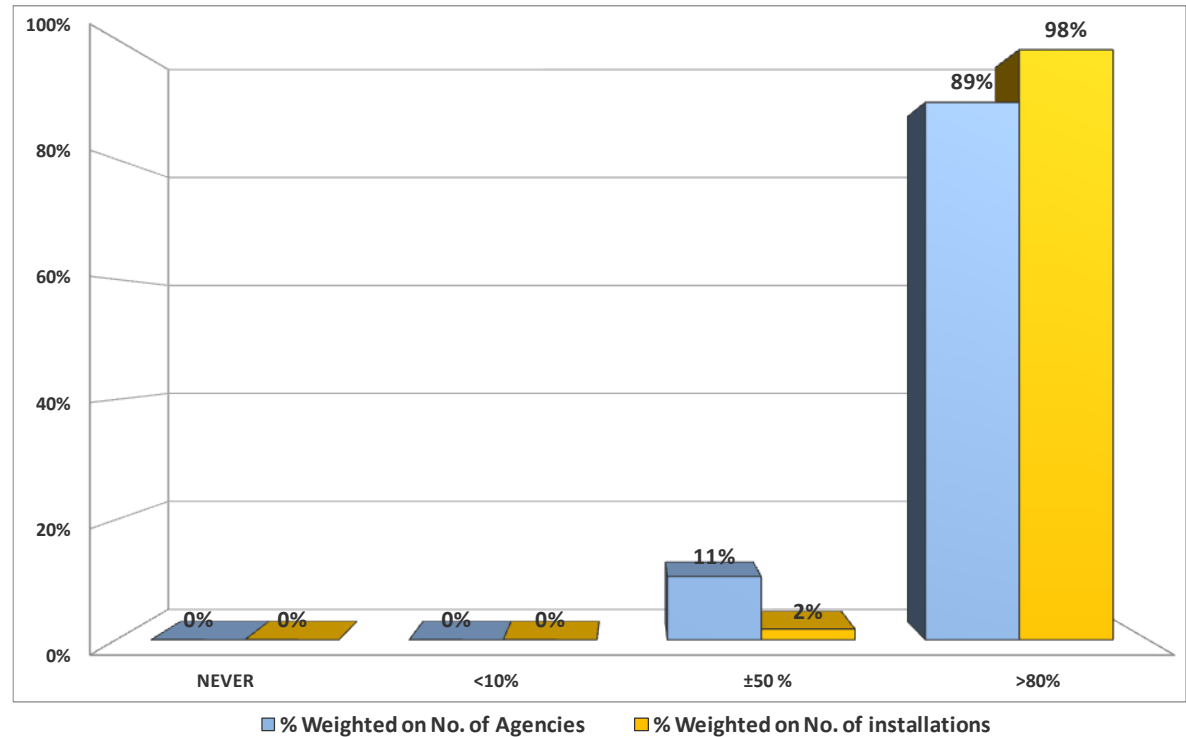
The behavior of Agencies is not very homogeneous: 21% of Agencies systematically program routine inspections, while the 11% never does, and the rest, which together cover nearly 70% of Installations with EIA, evaluate it case by case.



## 6. Assessment by ARPA of the plant operator's disclosure obligations

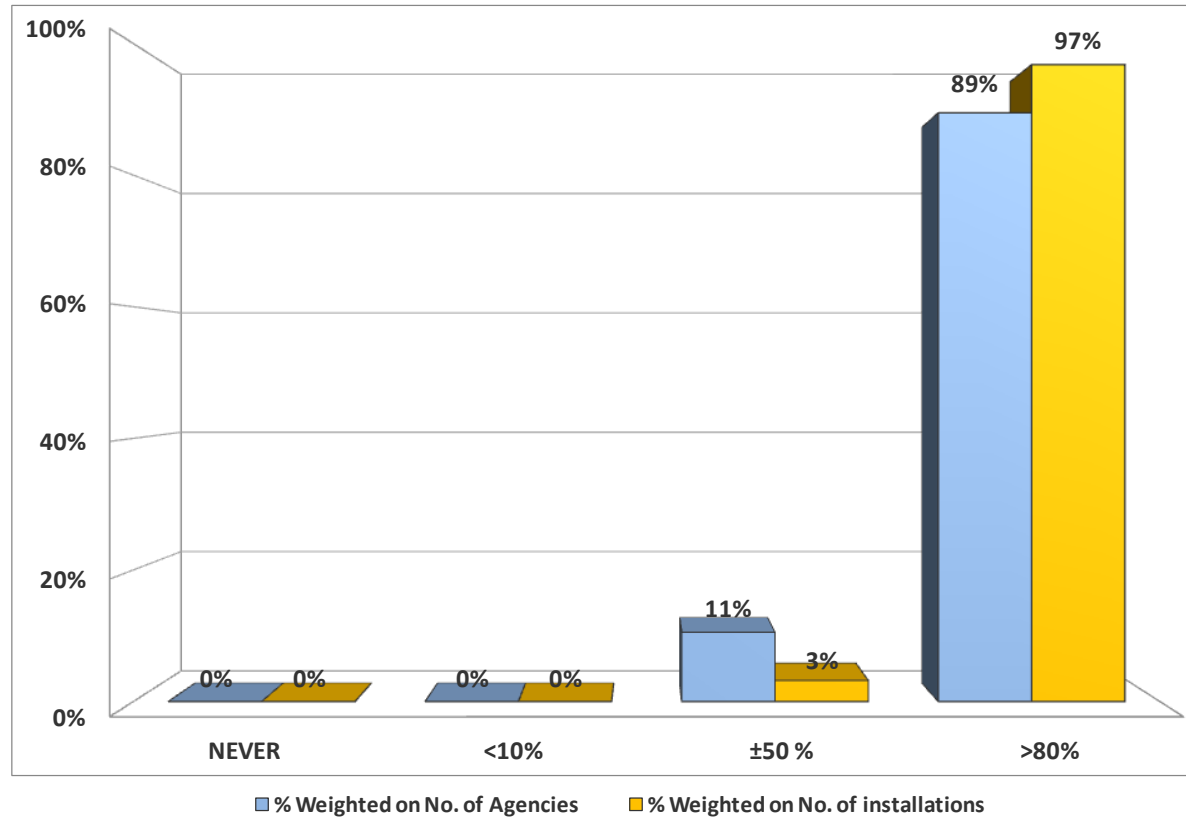
### 6.1. Evaluation of the duty of communications of abnormal events (malfunctions, accidents, etc.) that cause significant environmental impacts

Basically all Agencies verify the completion of communications by the operators in case of significant abnormal events



## 6.2 Evaluation of communications of imposed limits exceeded

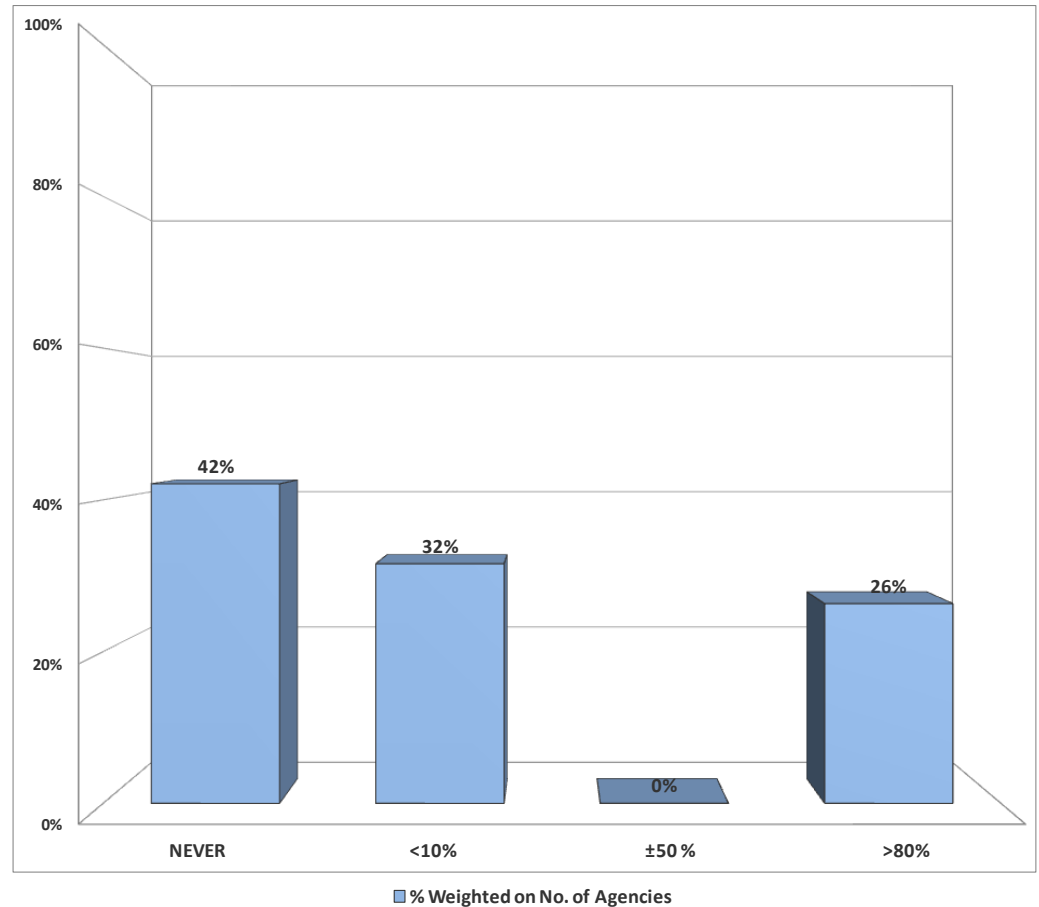
Also in case of communication of imposed limits exceeded Agencies behavior is very homogeneous, since these systematically carry out the assessment of the related operators communications for more than 97% of the installations.



### 6.3 Evaluation of E\_PRTR Communications (EC Regulation no. 166/2006 "European Registry of Emissions and Transfer of Pollutants")

The graph shows a very inconsistent behavior of the Agencies, that probably reflects the different regional / national organization on this matter. Most of the Agencies do not evaluate the E-PRTR communication of Installations of its territory, or do it only if requested in the authorization. A quarter of Agencies always carry out the evaluation; many Agencies they rarely do it.

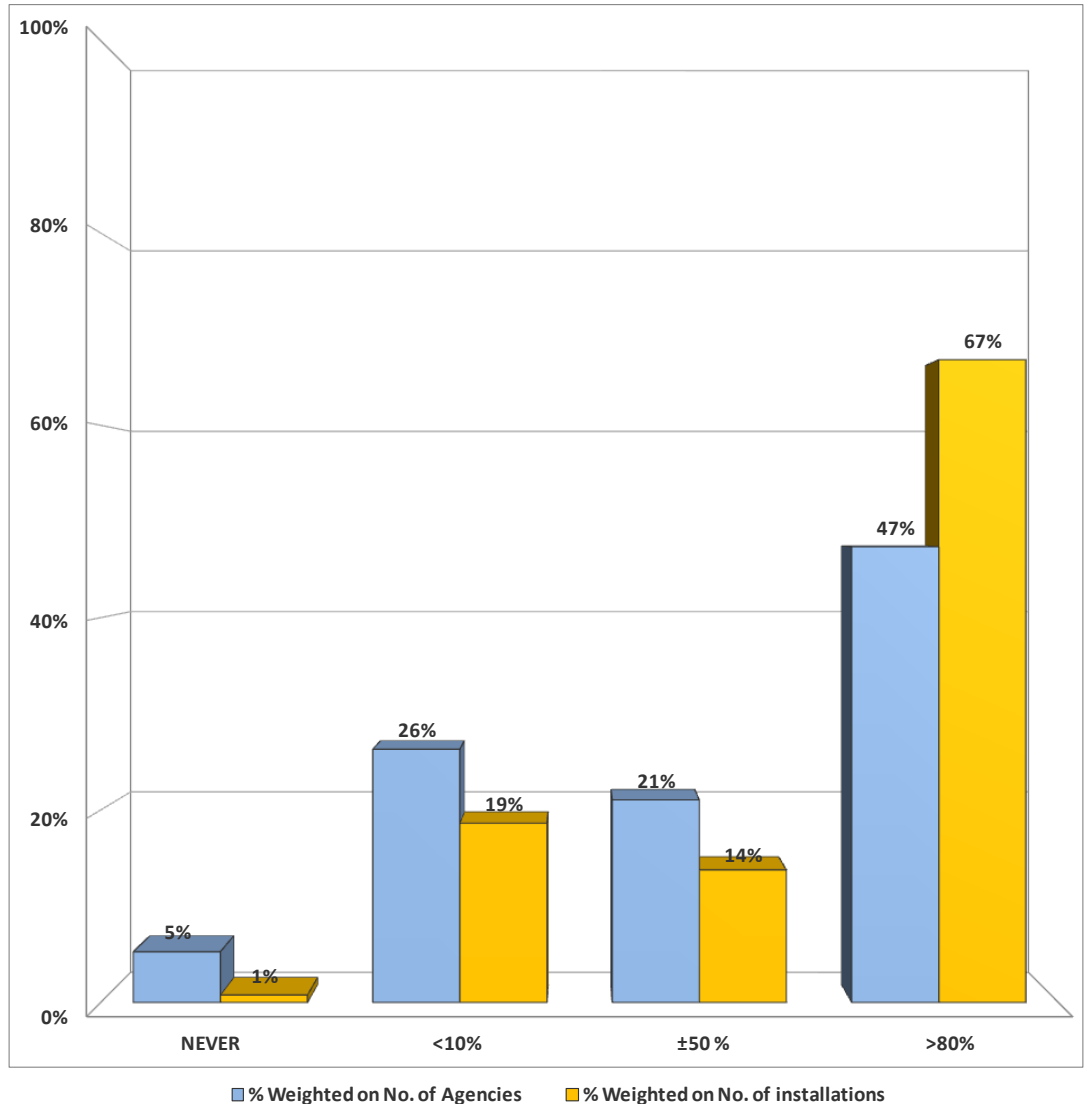
Since not all Installations are required to submit the documentation, and in the lack of numerical data concerning the installations concerned, the graph was related only to the Agencies without considering also the data on the number of installations.





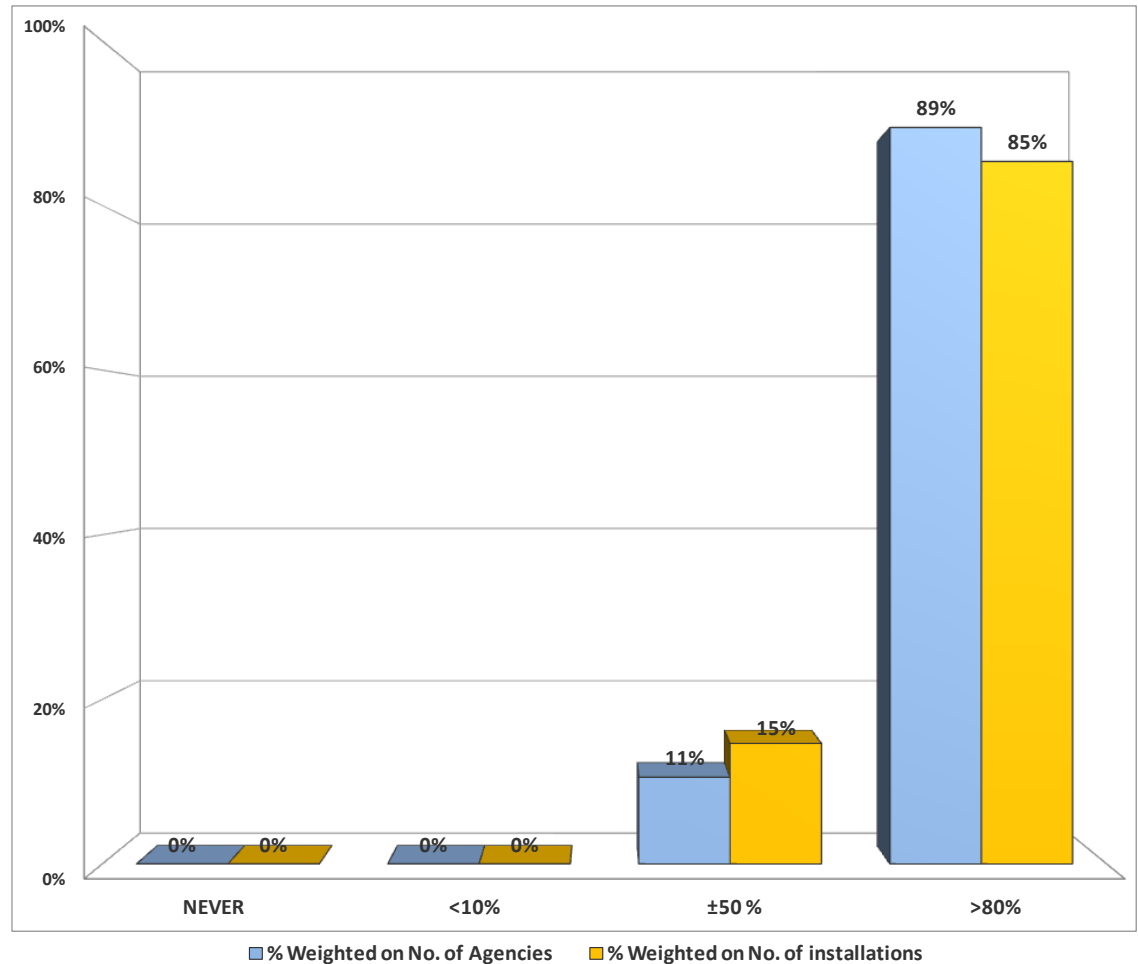
## 6.4 Evaluation of the Unique Model of Environmental Declaration (UMED) submission

The graph shows a fairly homogeneous behavior of the Agencies; in fact, almost all pay attention to the submission of the Unique Model of Environmental Declaration (UMED), so that approximately two-thirds of cases their submission is verified in a systematic way, while in the remaining cases, the verification is conducted in a more or less sporadic manner.



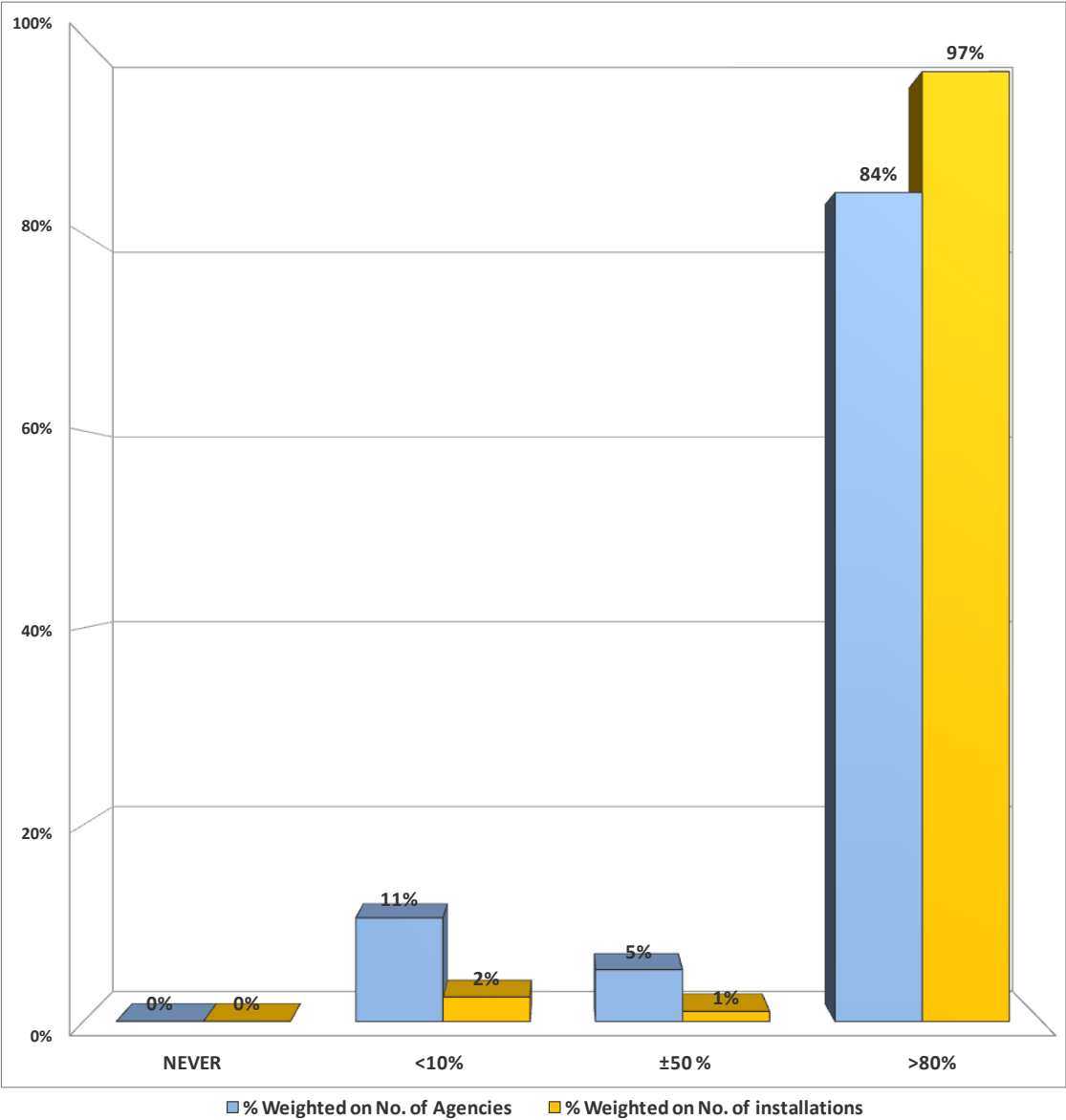
## 6.5 Evaluation of the communications of plant modifications

The Agencies show very homogeneous behavior; almost all systematically evaluate communications concerning changes to the installations; the other two agencies examine them occasionally.



**6.6 Evaluation of the communications about the change of the operator and/or the ownership of the authorization**

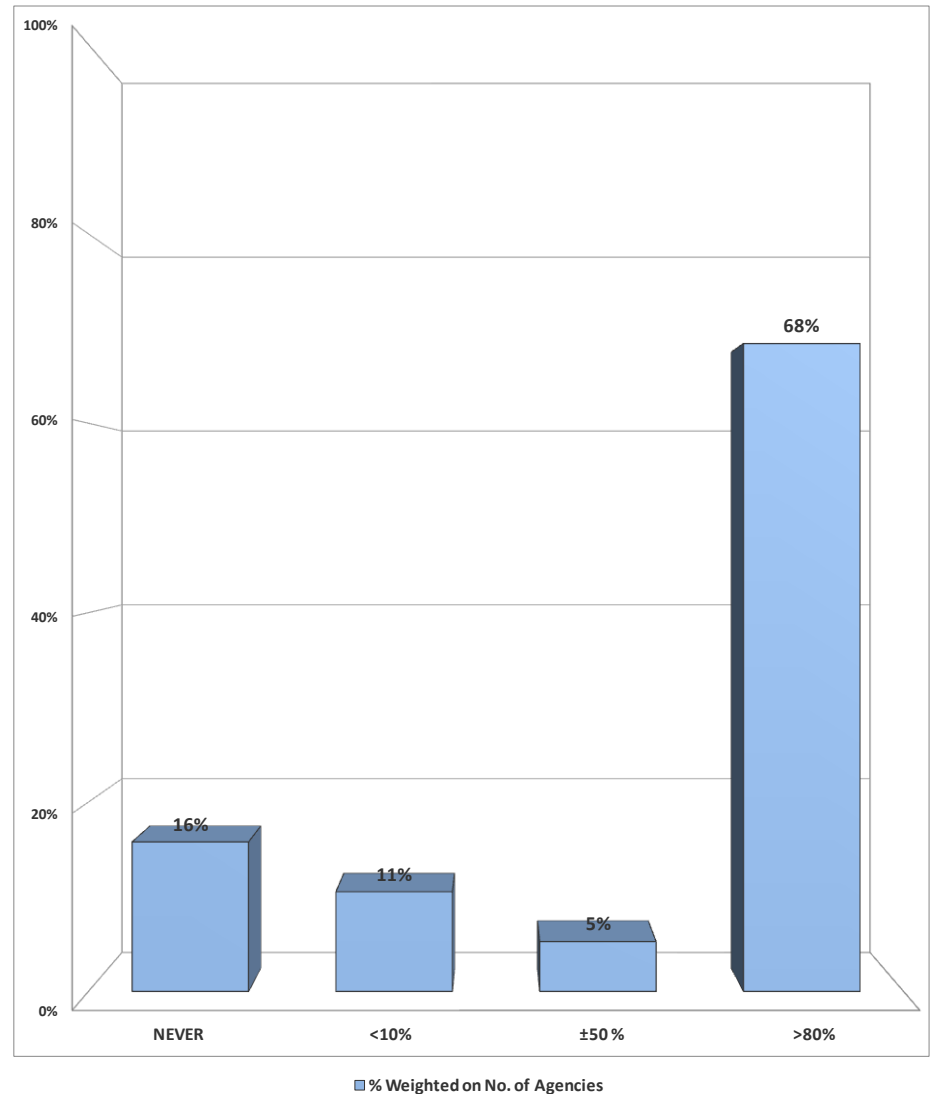
The Agencies show very uniform behavior; almost all systematically evaluate the communications about the changes in the operator or the ownership of the authorization; in the remaining cases, which amounted to only 3% of installations with EIA, an Agency evaluate this type of communications from time to time and the remaining two in a sporadic manner.



## 6.7 Assessment of the submission of the Solvents Management Plan

Most of the Agencies make this assessment, while a small percentage never do; in the percentage of Agencies that do not carry out this type of evaluation could be embodied even those who have not installations subject to this obligation in their territories.

Because not all Installations are subject to this type of obligations, and since the actual number of installations obliged is not available, the evaluations were related exclusively to the Agencies.



7. Sampling and subsequent laboratory analyses carried out by ARPA as part of an audit

## Premise

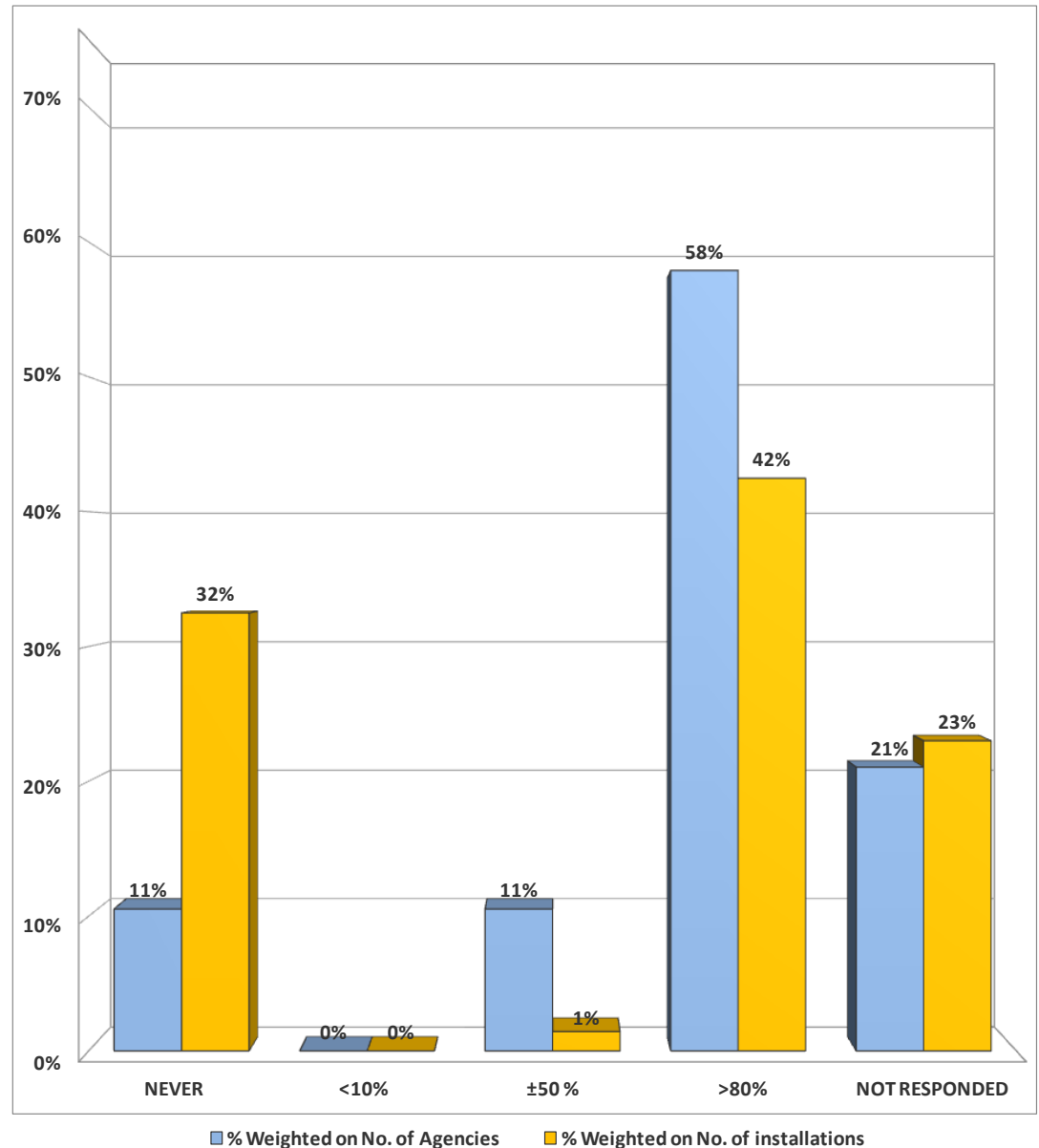
- It was introduced in all questions the column “not answered”.
- They have been classified as "not responded" both those actually missing and those falling in the column "according to the Monitoring Plan (MP)”
- Generally a question is examined if the percentage of "no answer" is  $\leq 20\%$ .

**7.0 The Monitoring and Control Plan (PMC) \* of the authorization includes the number and frequency of sampling activities of the environmental recipients to be carried out by ARPA**

It can be said that frequently in the authorizations are regularly included the sampling activities of different recipients performed by ARPA.

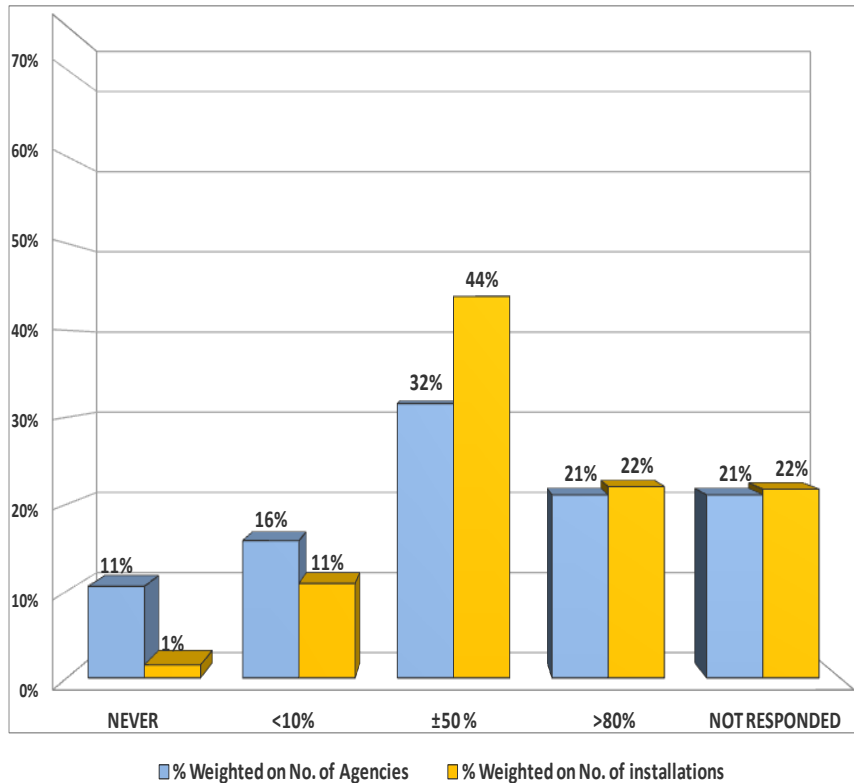
They are included in about 60% of the authorizations of the EIA installations; 20% of the Agencies (corresponding to 23% of the installations) not responded to this question.

It should be noted that two Agencies, which cover 32% of these installations, deal with authorizations in which it is never reported the activity in head to ARPA.

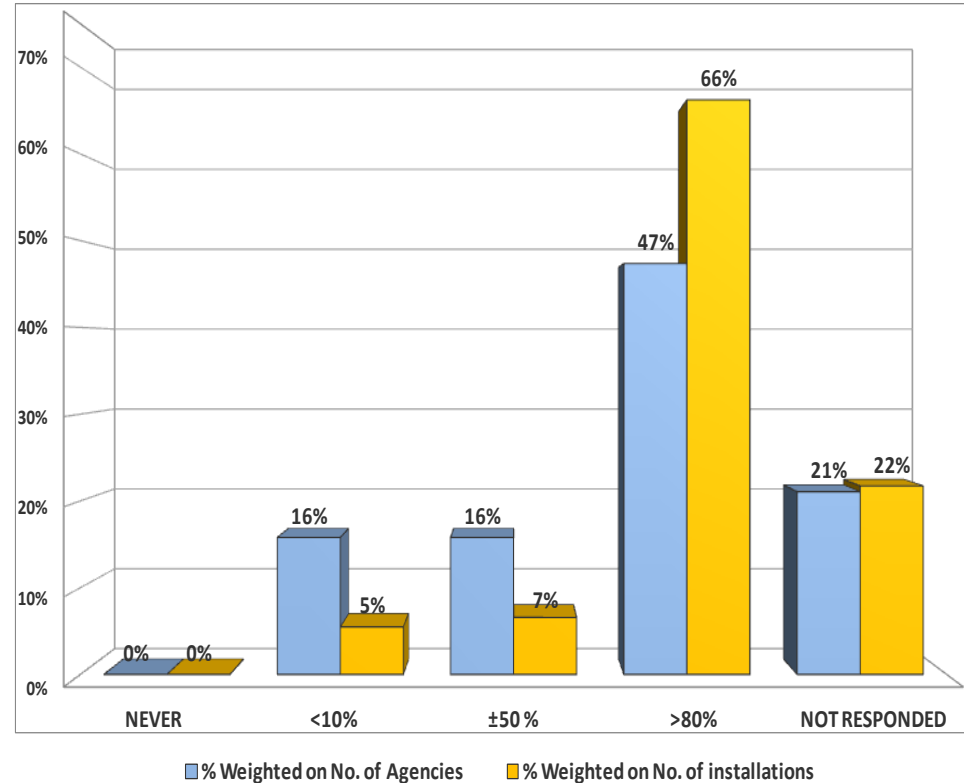


## 7.1 Wastewaters

### 7.1.1 - Samples of wastewaters discharging in into sewer are collected



### 7.1.2 - Samples of wastewaters discharging into the water body are collected



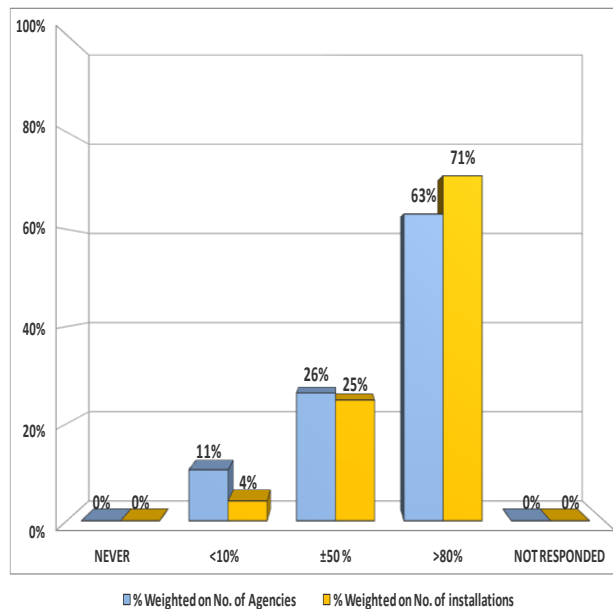
Generally, during the audit, samplings of wastewater is performed; usually samplings of wastewaters discharging into surface water body.



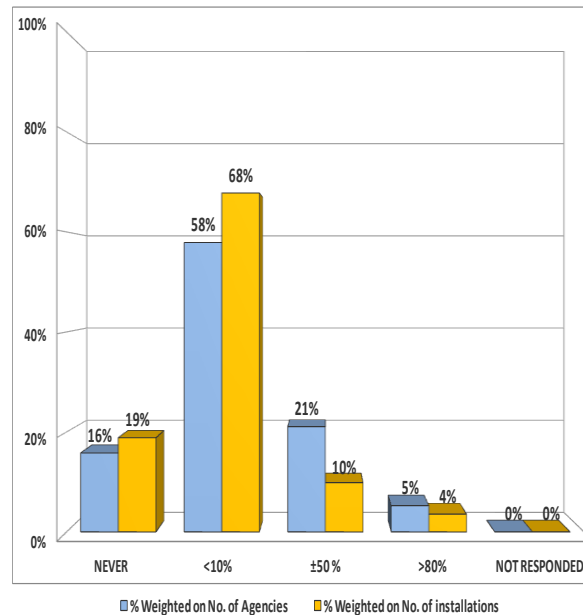
## 7.1 Wastewater

### 7.1.3 With what frequency, compared to the total number of samplings, are sampled the following types of wastewater:

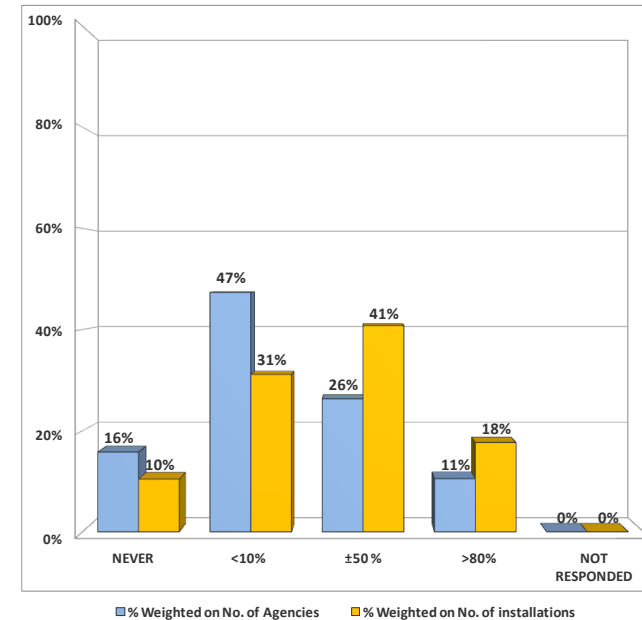
7.1.3.1 Industrial waste water deriving from the production cycles



7.1.3.2 Industrial Wastewater deriving from "cooling"



7.1.3.3. Wastewaters of "run-off rain"



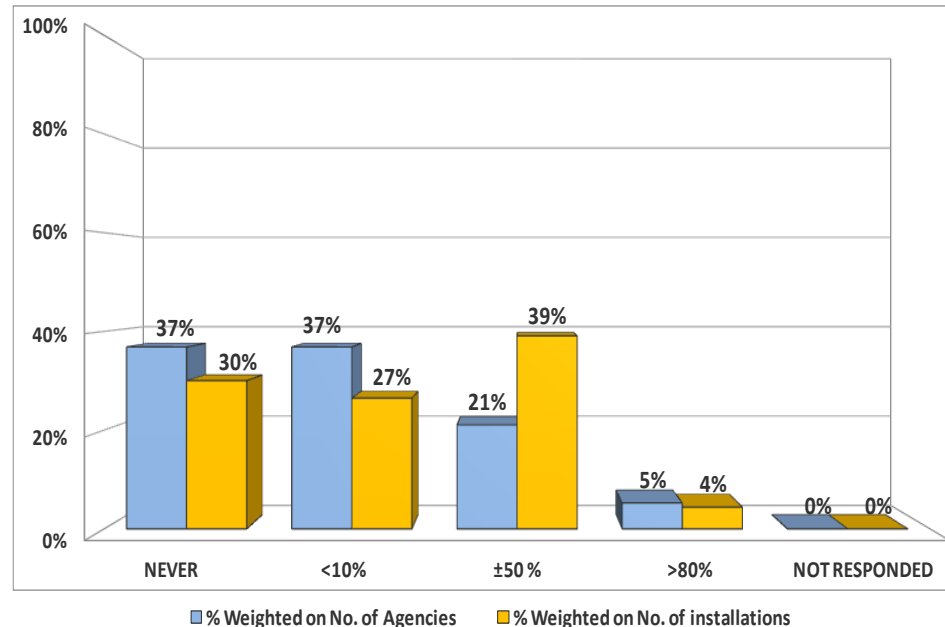
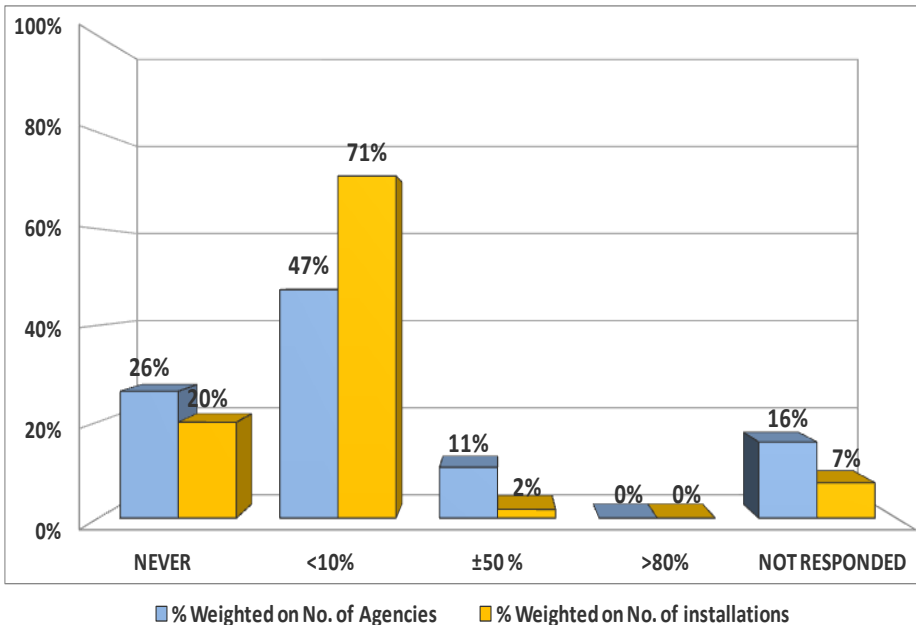
The sampled wastewaters are mainly those deriving from the production cycles followed by the rainwaters run-off; it can be said that on national territory are rarely sampled those arising from cooling cycles.

## 7.1 Wastewater

### 7.1.4 In case of presence of wastewater treatment plant

7.1.4.1 - sampling and subsequent laboratory analysis are carried out in different points of the plant (eg: equalization tank, the biological section output, output of physical chemical treatment, upstream-downstream filtration, etc.) to assess the yields of the different sections or to evaluate particular problems

7.1.4.2 - on-site measures are carried out for cognitive nature (not fiscal) through the use of portable equipment such as pH, electrical conductivity, dissolved oxygen, red-ox, spectrophotometric measures, through the use of kit: determination of nutrients (P, N, NH<sub>3</sub> etc.)



Rarely sampling and analysis are conducted to assess the performance of wastewater treatment plants; they are instead conducted through cognitive analysis kits to assess the water quality. In particular, the 39% of the installations on the national territory are likely to experience these verifications with the probability of 50%.

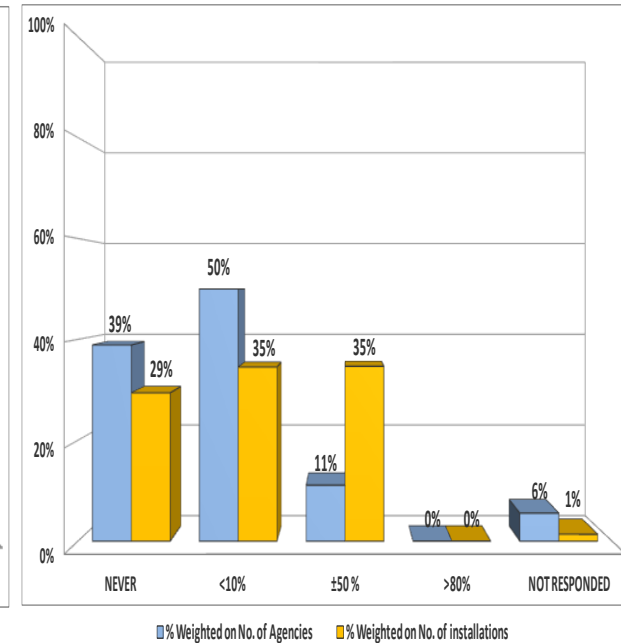
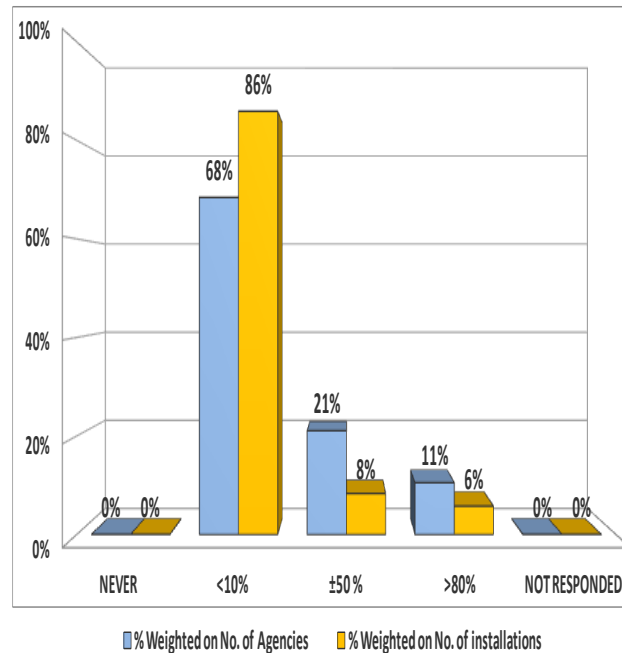
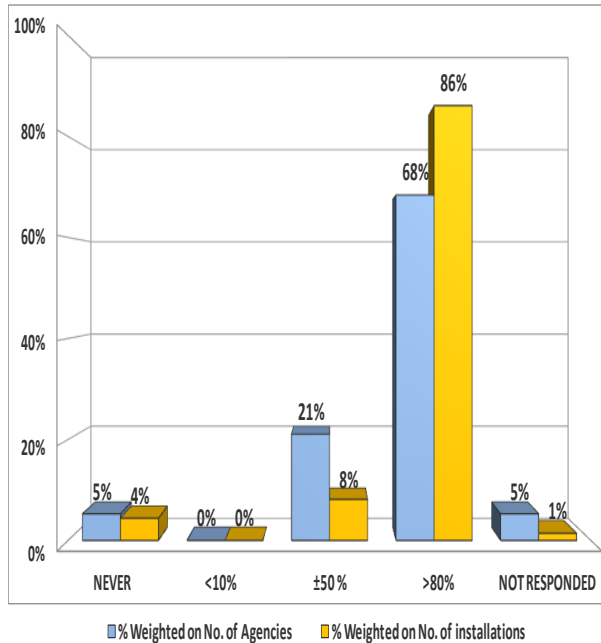
## 7.1 Wastewater

### 7.1.5 Choosing of analytical parameters determined by the laboratory on sampled wastewater:

7.1.5.1 exclusively pollutants and parameters set out in the authoirzed Monitoring Plan

7.1.5.2 Also other parameters provided from Tab. 3, Annex 5, but not expressly set out in the authorized Monitoring Plan

7.1.5.3 Only some parameters



It can be said that 70% of Agencies verify all pollutants and the parameters provided by the MP; rarely occur additional parameters, whereas, only 11% of the Agencies, in certain cases, only verify some parameters provided by the MP.

## 7.2 Emissions in the atmosphere

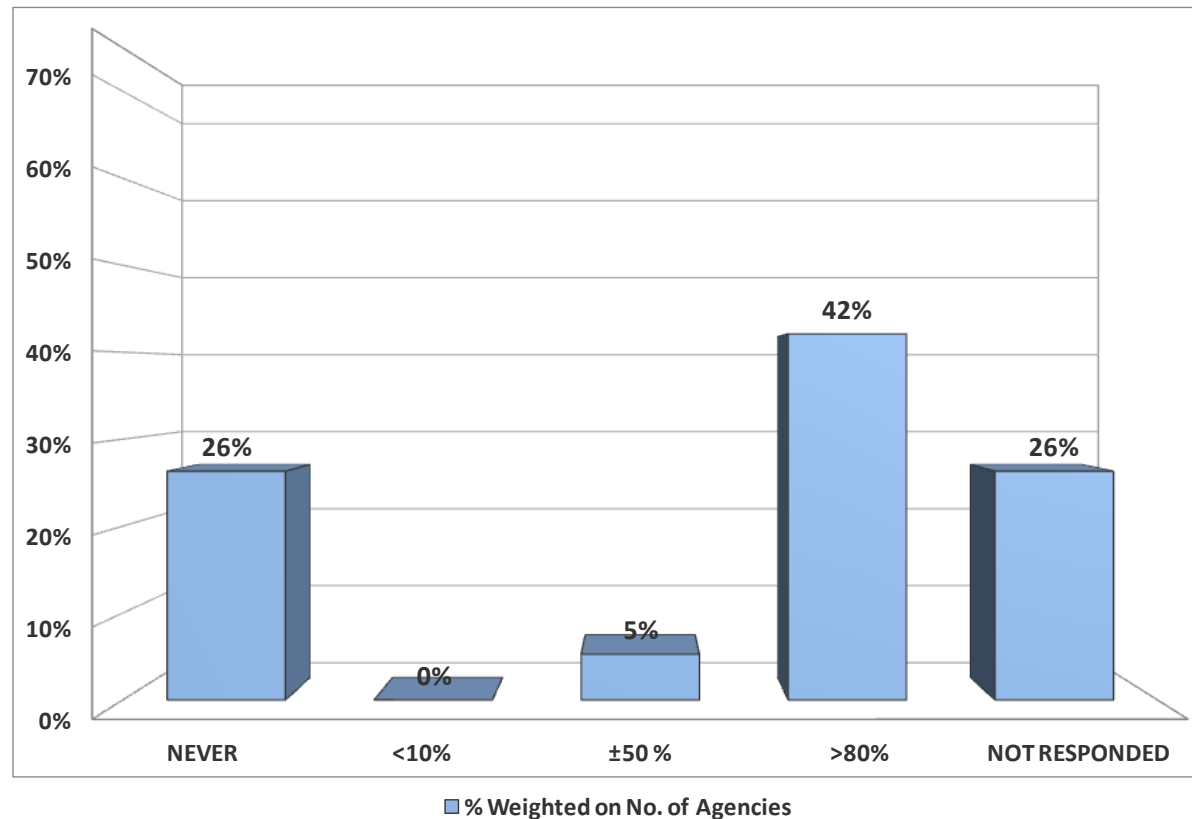
### 7.2.1 *The Solvents Management Plan (SMP) is evaluated*

Results are weighted exclusively on the Agencies because the number of installations subject to this obligation is unavailable.

Analysis of data shows that the SMP is generally assessed by 47% of the Agencies.

26% of Agencies does not verify SMP probably due to the lack of installations subject to this obligation.

It should be noted that 26% of Agencies did not answer the question.

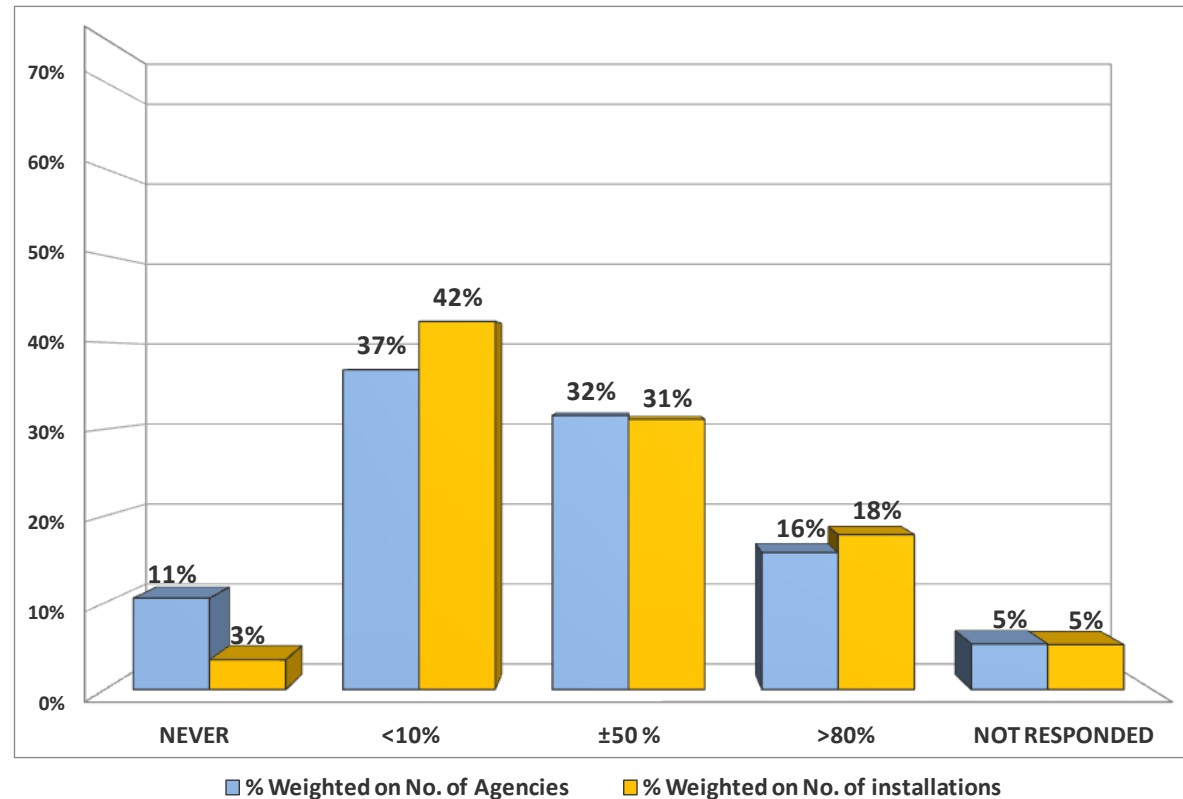


## 7.2 Emissions in the atmosphere

### 7.2.2 Sampling of emissions are carried out during the routine inspections

Usually stack air emissions samples are collected during the audits. In particular 48% of the Agencies, which corresponds to 49% of the installations, always or almost always carries out this type of sampling.

The remaining 48% of the Agencies, which corresponds to 45% of the installations, rarely or never collect stack air emissions samples.

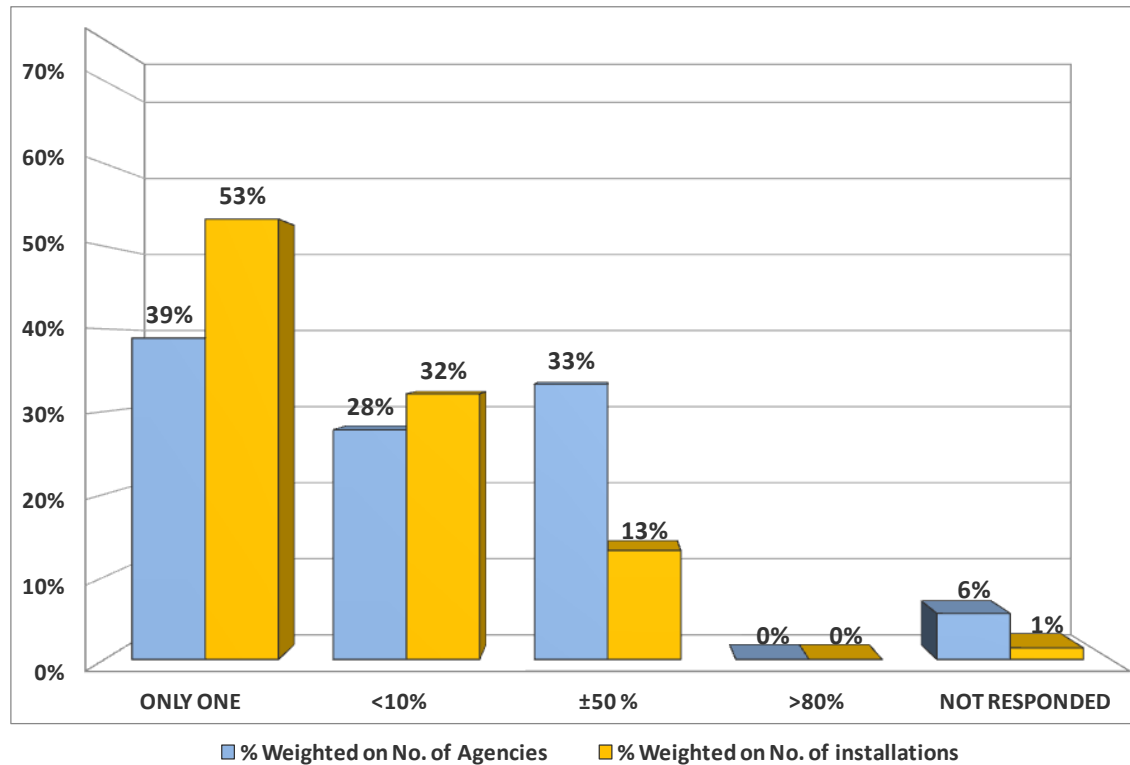


## 7.2 Emissions in the atmosphere

**7.2.3** *In case of sampling: how many stacks are normally controlled with respect to the total number in the installation (which have significant emissions).*

Never all the stack emissions of the installation are sampled.

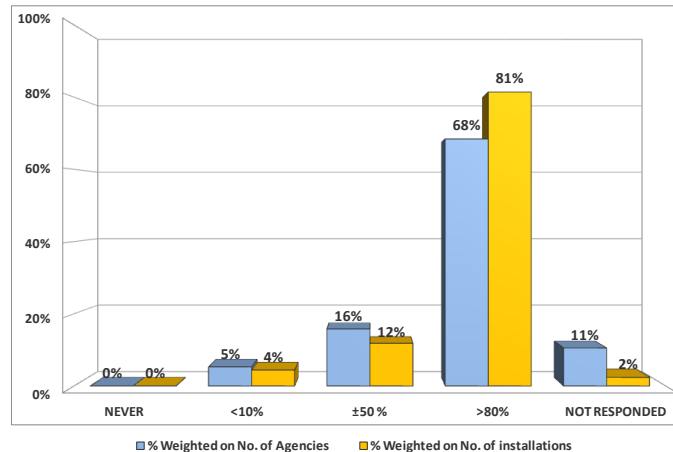
Very frequently samples are collected from a unique stack.



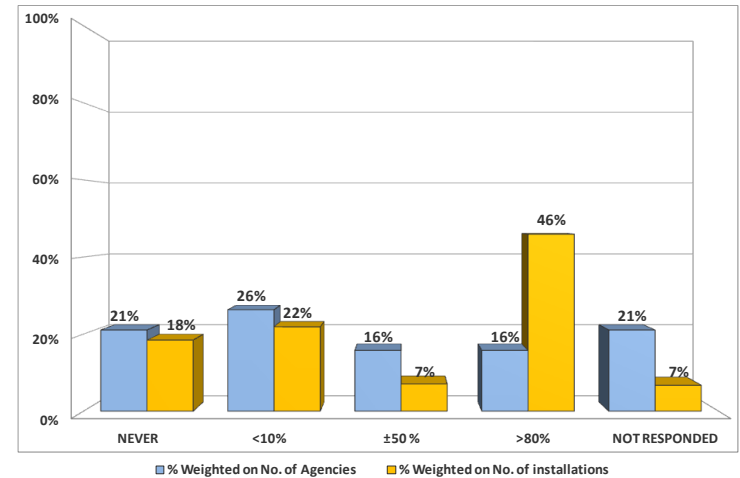
## 7.2 Emissions in the atmosphere

### 7.2.4 In case of emission sampling which are the considered pollutants (choose from the following options)

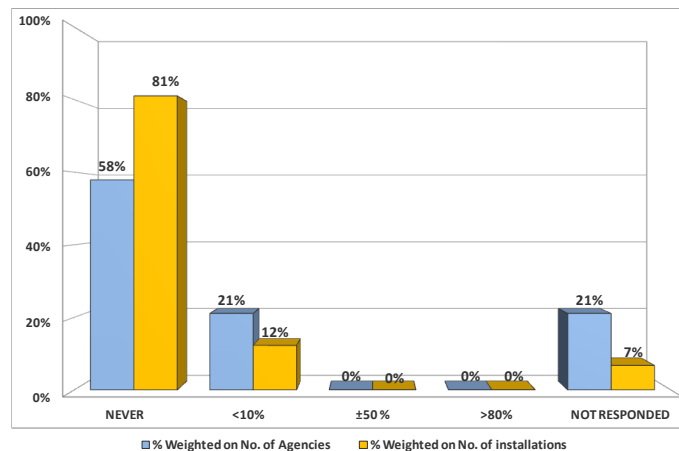
7.2.4.1 Only those included in the authorization Monitoring Plan



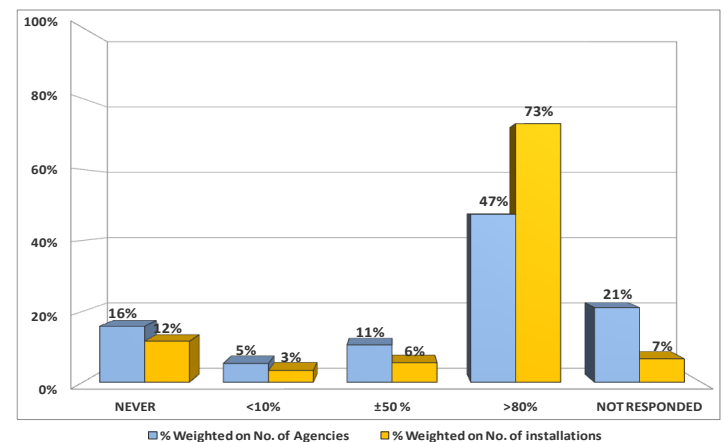
7.2.4.2 Only the most critical ones included in the authorization Monitoring Plan



7.2.4.3 more than the ones included in the authorization Monitoring Plan



7.2.4.4 only the pollutants that ARPA's lab can analyse

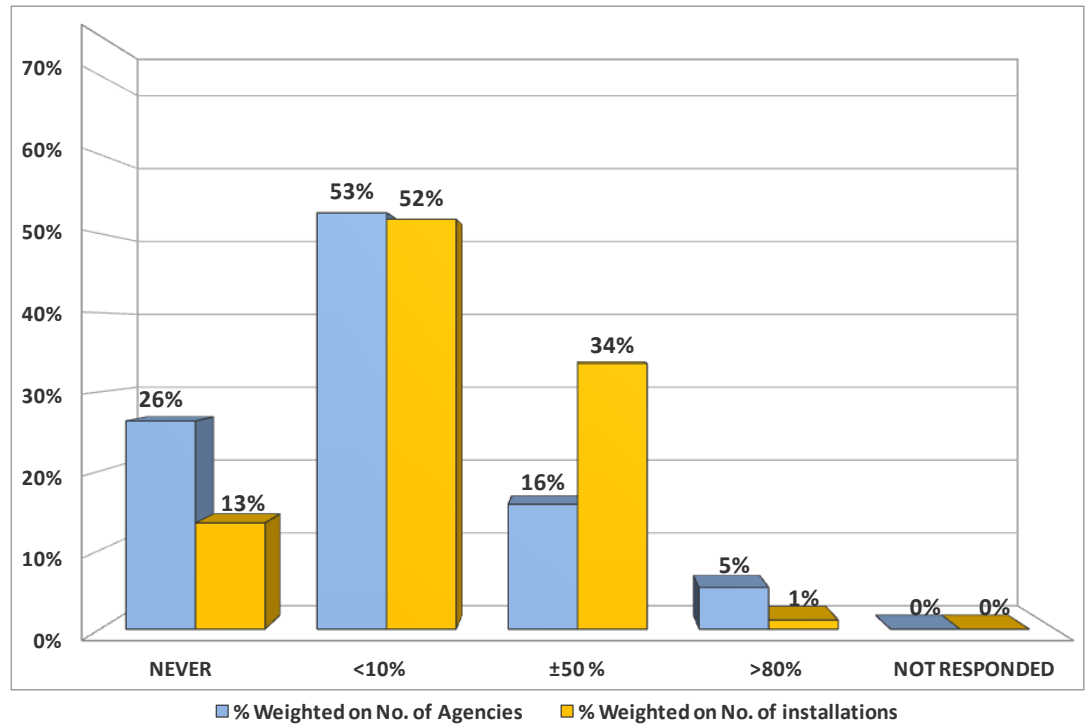


Usually, priority is given to the analysis of the parameters included in the MP; it almost never happens that other pollutants are analysed, this may be due to the correct emission characterization. It is important to highlight that the laboratories of the ARPA/APPA are able to perform the analysis, although with some differences regarding some of the most critical parameters.

## 7.2 Emissions in the atmosphere

**7.2.5** *In installations with continuous emission monitoring systems (CEMS) tests are carried out in parallel with ARPA equipment to verify the proper operation and calibration of CEMS (Linearity, IAR, QAL 2, UNI 14181, etc.).*

Occasionally ARPAs use own equipment to verify the correct calibration / operation of the CEMS. Only in one Agency is used proper equipment for verification of the one installed at the stack.

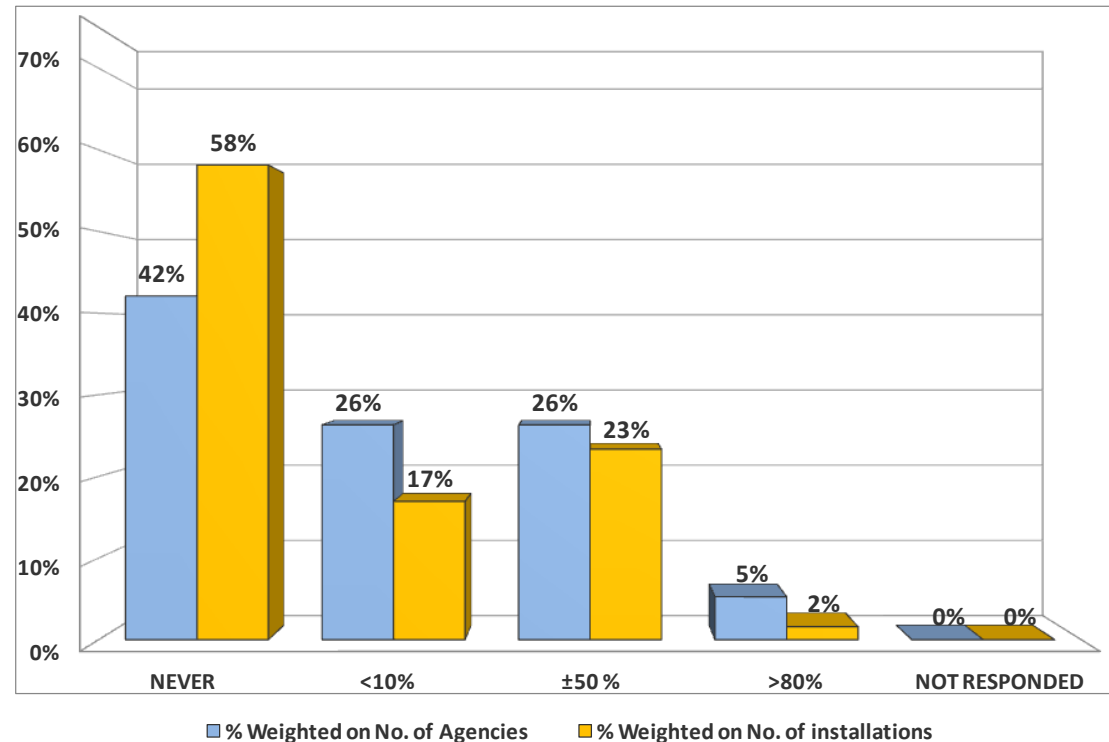




## 7.2 Emissions in the atmosphere

**7.2.6** *During inspections, fact-finding tests are carried out to verify the internal procedures relating to the maintenance of proper calibration of measuring instruments, such as the reading of the gas certified samples owned by ARPA or belonging to the operator*

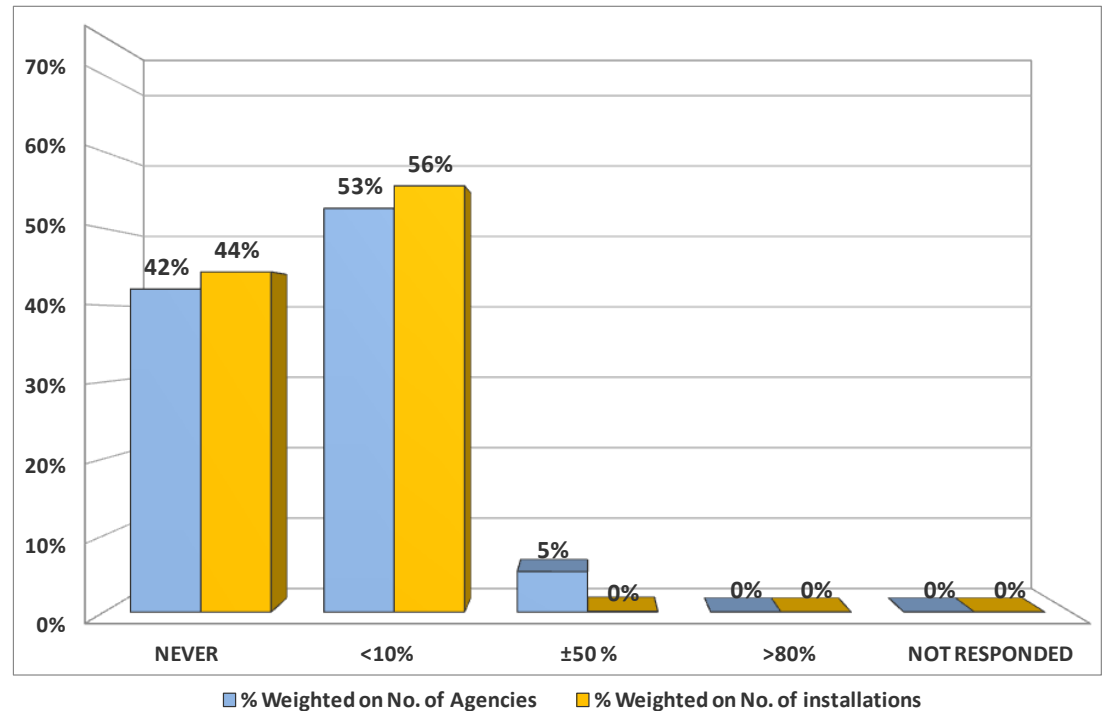
Hardly ever, fact-finding tests to verify the instrumental capabilities installed are performed. Only one Agency always makes this type of control.



## 7.2 Emissions in the atmosphere

**7.2.7** Fact-finding non-fiscal measures are carried out through portable equipment (PID, explosimeters, Multi parametric instruments) for the quantification, for example, of diffuse emissions

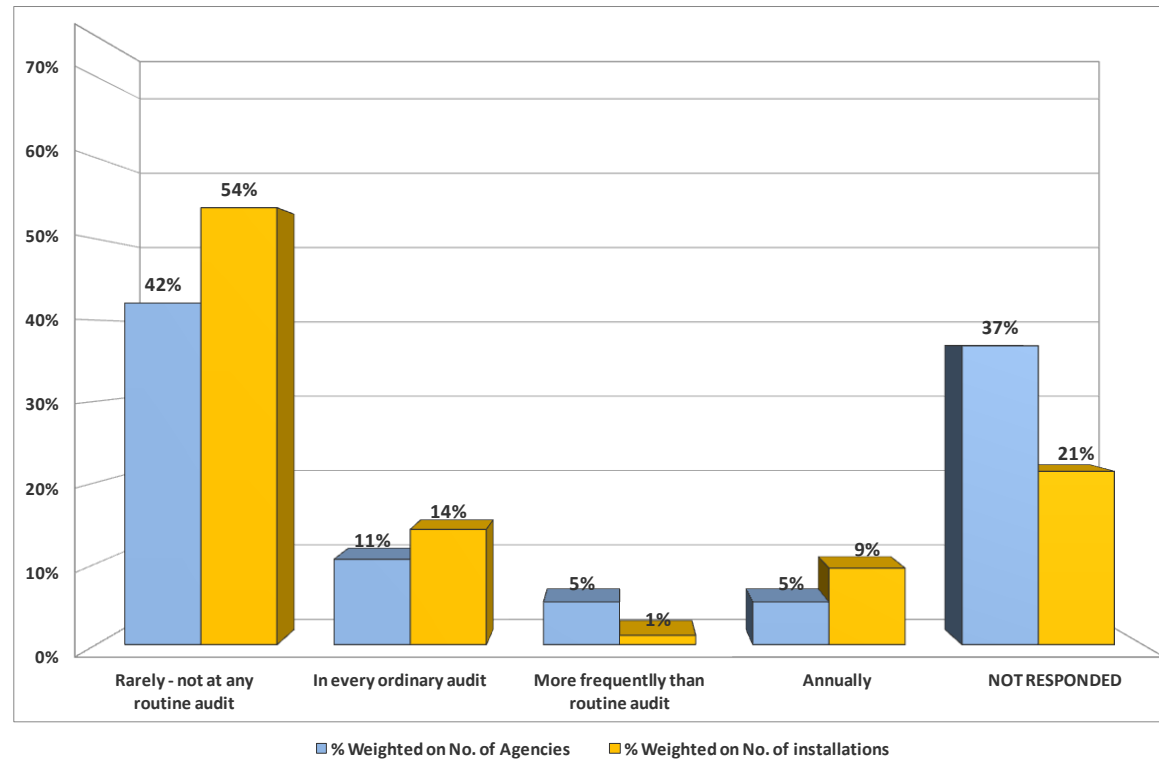
Equipment for detecting the presence of diffuse emissions is almost never used



## 7.2 Emissions in the atmosphere

**7.2.8** *In case of particularly significant emissions resulting from incineration plants, co-incineration, the first smelting steel mills or foundries dealing with scrap, etc, micropollutants are determined (PAHs, dioxins-furans)*

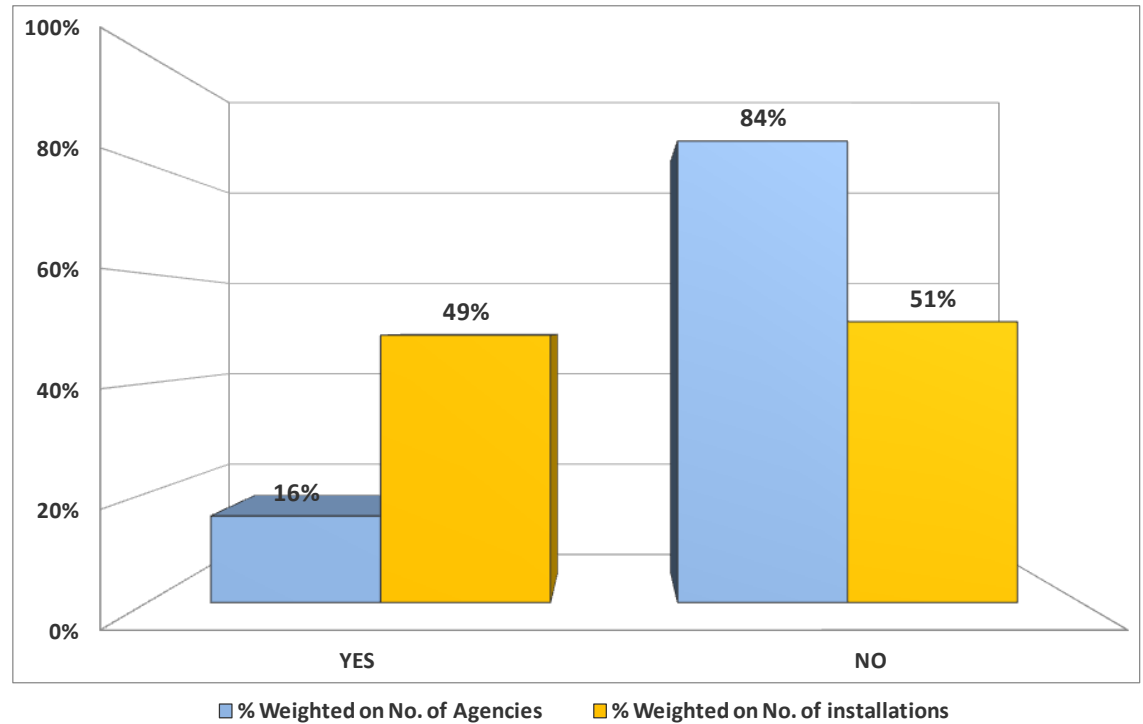
This type of control is carried out unevenly throughout the country. Most of the time these parameters are not analyzed with the exception of an Agency that in each audit performs this type of control. It should be noted that 37% of Agencies did not respond.



## 7.3 Odors

### 7.3.1 *There is a regional legislation about odor / olfactory nuisance*

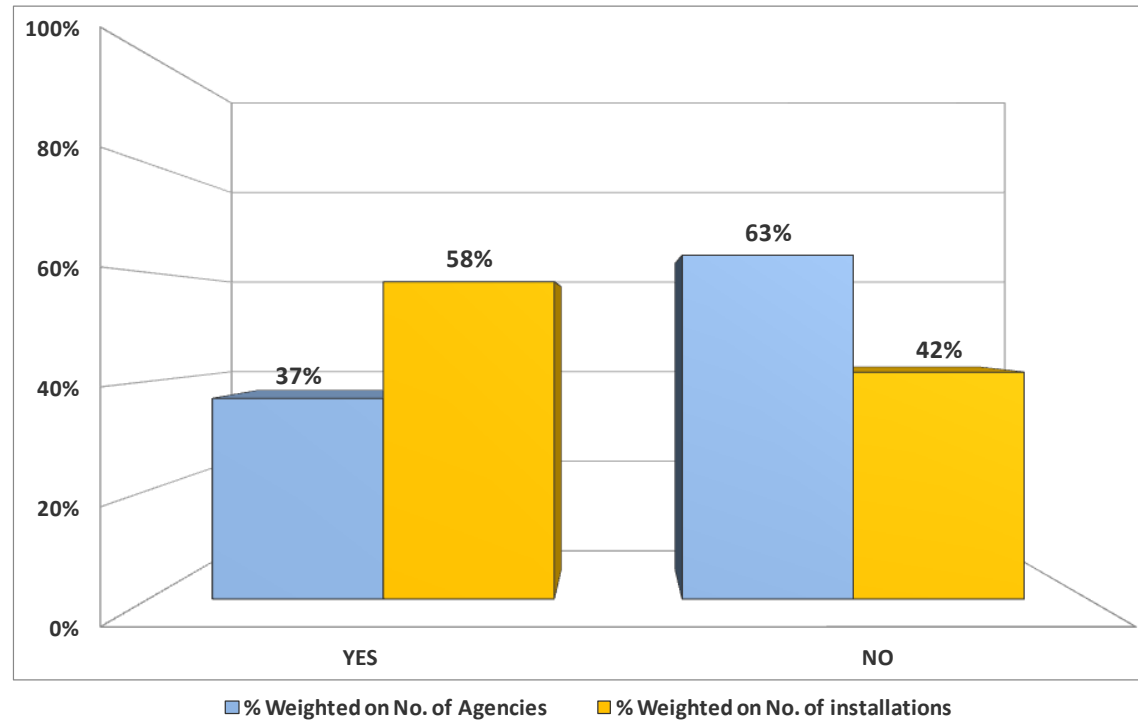
It is noted that only 16% has responded positively to the question by highlighting that, at the time of data processing, such regulations for this sector is present only in 3 Regions.



## 7.3 Odors

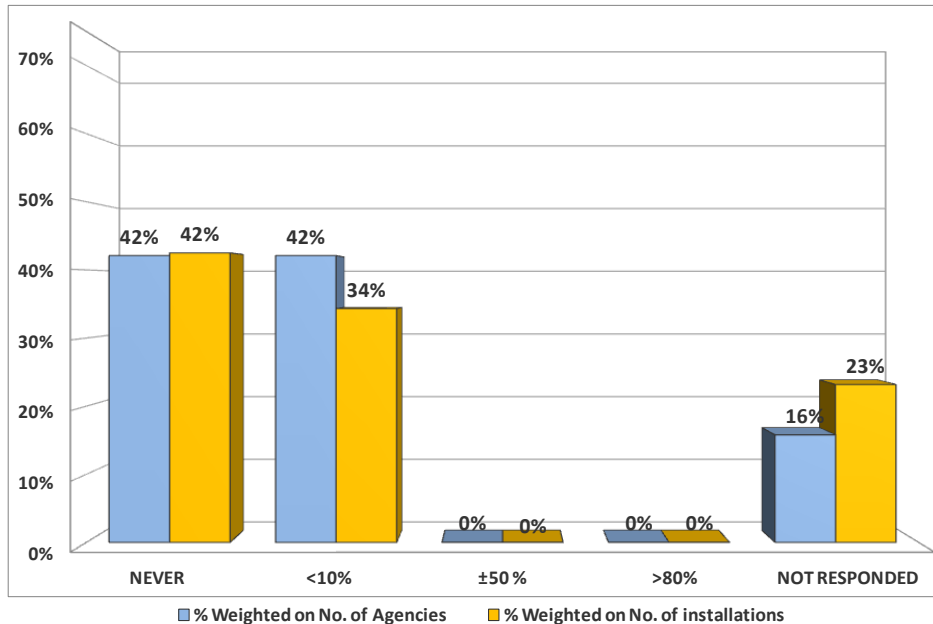
### 7.3.2 Limits are provided in odorimetric unit (o.u.)

Generally there are no limits in odorimetric units.

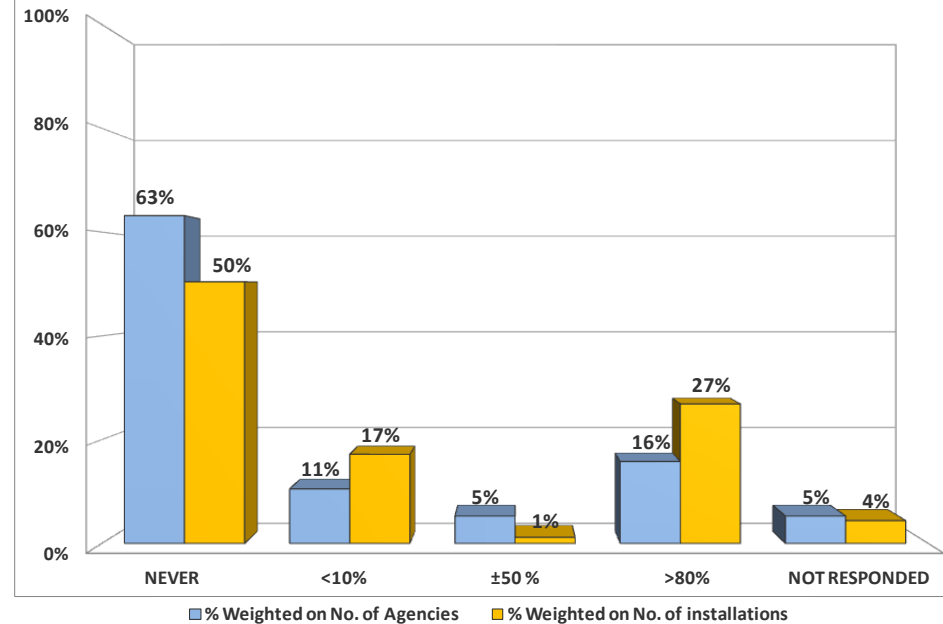


## 7.3 Odors

**7.3.3** -In case of an installation with evident problems of olfactory nuisance, with which frequency does ARPA carry out odorimetric investigations



**7.3.4** - Investigations are carried out by ARPA laboratory

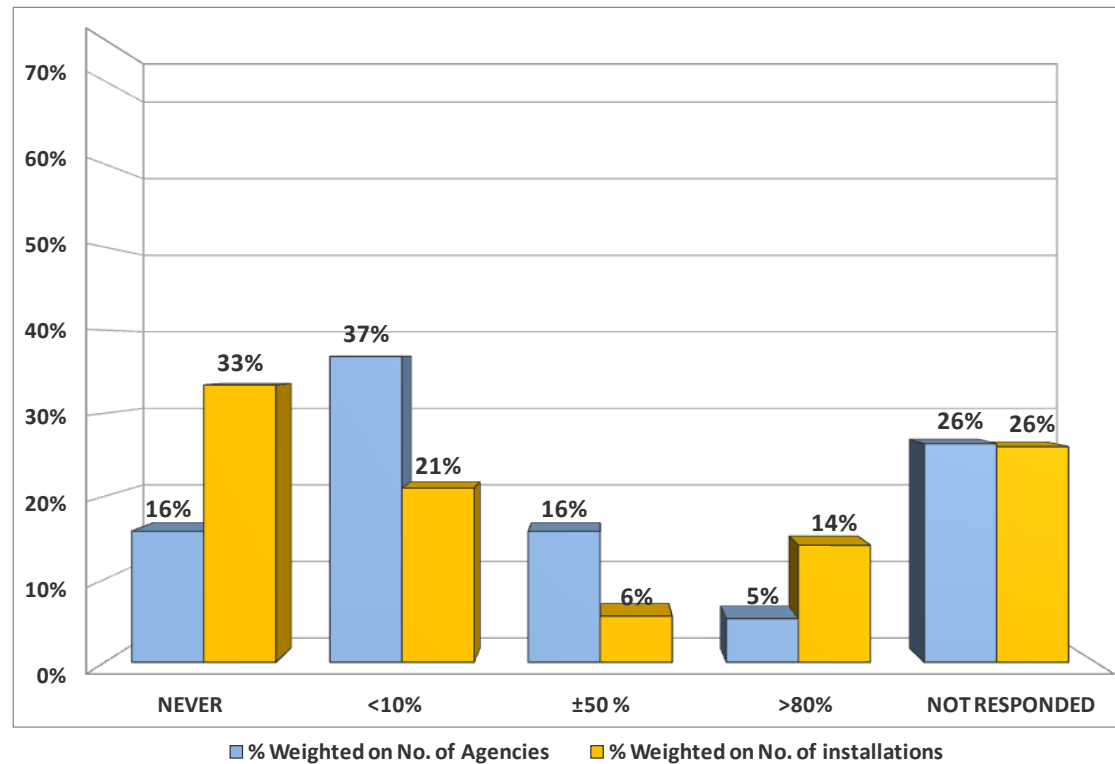


Not always odorimetric investigations are carried out and, if they are, almost never analysis are carried out by ARPA. It is important to note that only two agencies occasionally make such investigations and related analysis in their own laboratories.

## 7.4 Noise

**7.4.1** *How often noise emission measuring campaigns are carried out, in the absence of complaints, only to verify the compliance to limits*

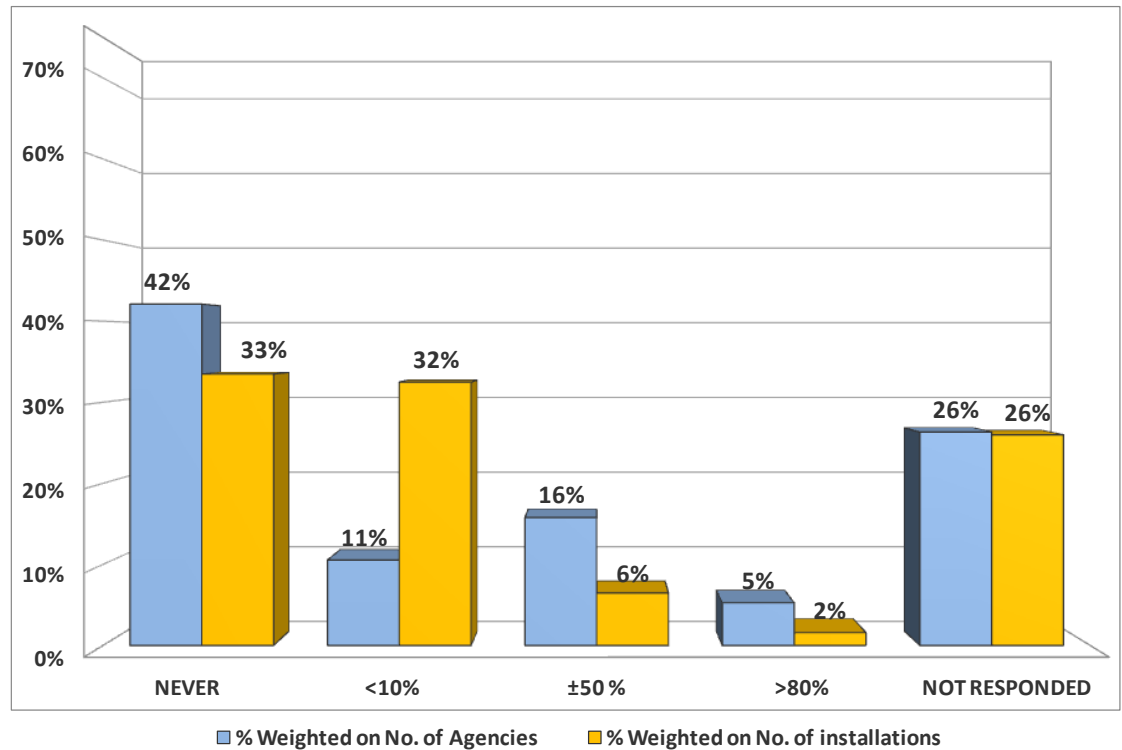
Generally, this type of measures are not carried out. Rarely it is done in three Agencies. It should be noted that 26% of Agencies did not answer the question.



## 7.5 Ground water / industrial water from wells

**7.5.1** *In case of usage of groundwater for industrial purposes, with which frequency analyses are performed for the chemical-physical monitoring of extracted water*

Rarely analyses are performed on ground water supply, only one Agency often performs this control. It should be noted that 26% of Agencies did not answer the question.

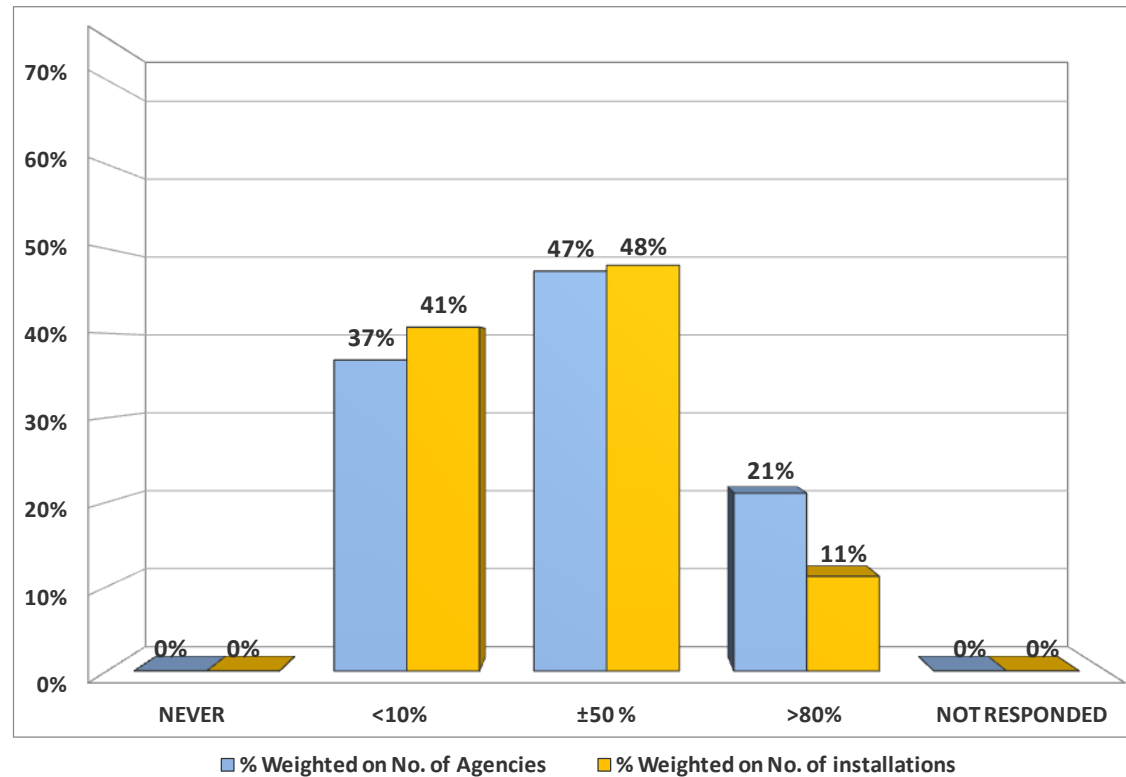




## 7.5 Ground water / industrial water from wells

### 7.5.2 The regional IED installations are equipped with a piezometric network

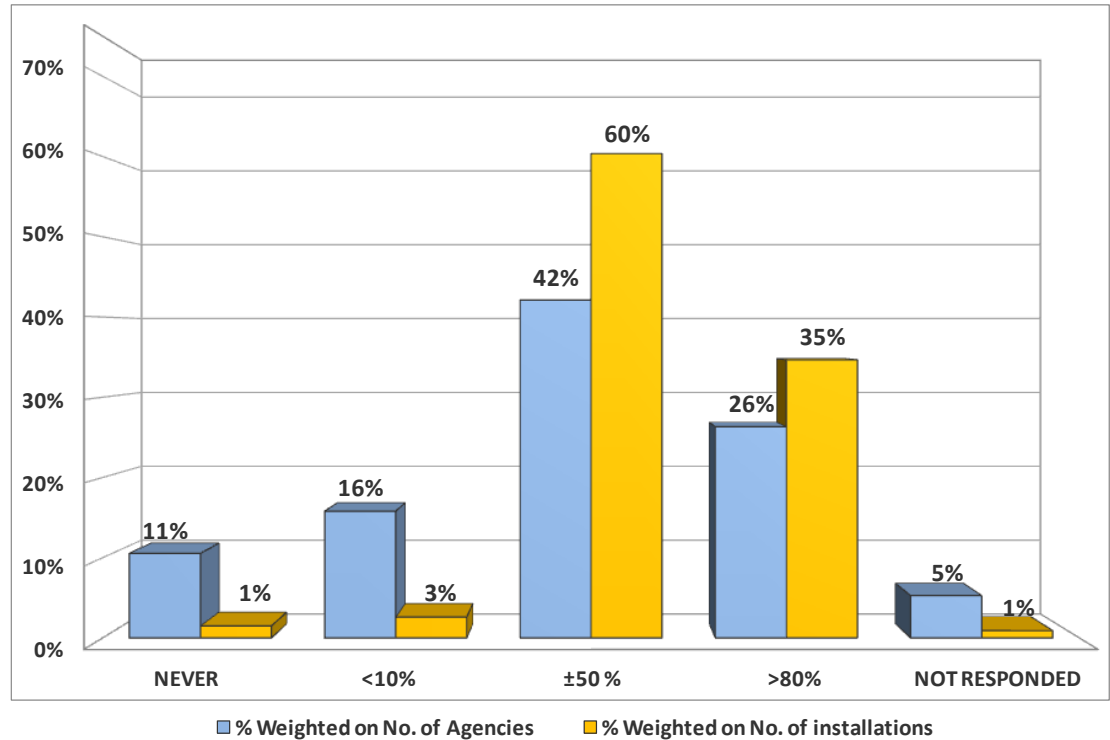
The figure shows that only 59% of the installations are equipped with a piezometric network.



## 7.5 Ground water / industrial water from wells

**7.5.3** *In presence of piezometers for groundwater quality monitoring in the IED installation (eg, landfills, waste treatment plants, installations subject to remediation procedure, etc.), how often sampling and analysis are carried out*

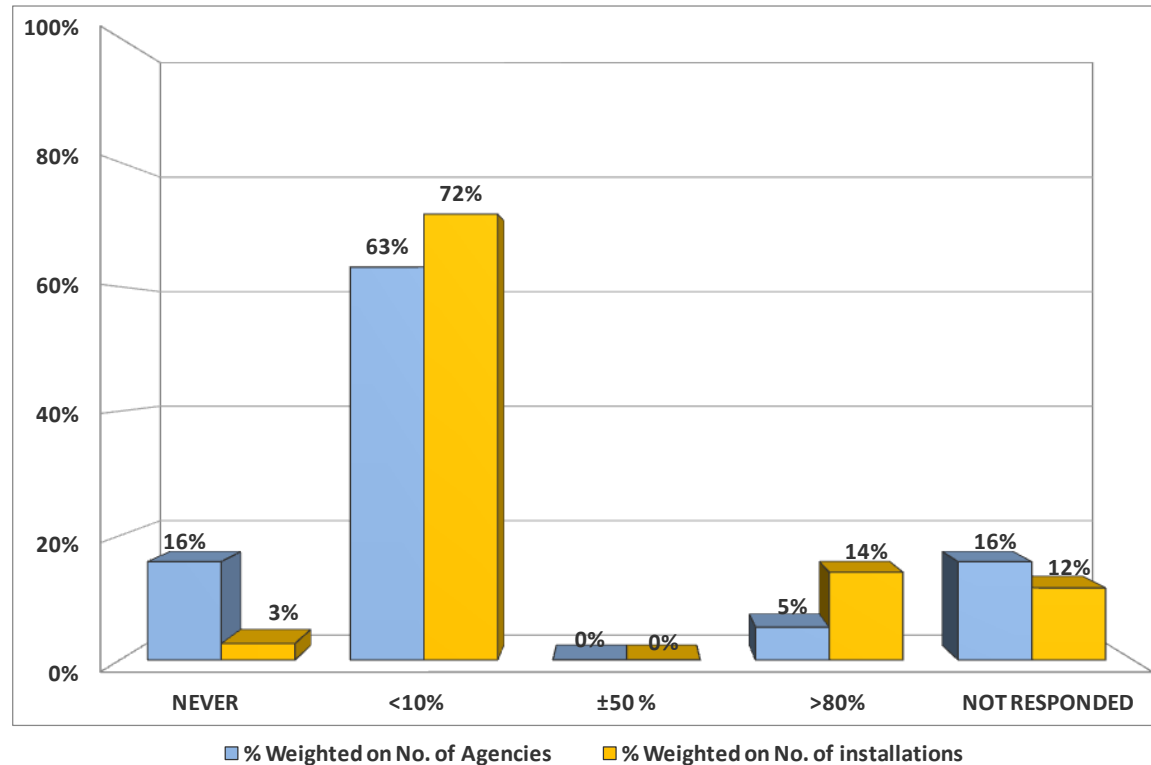
The piezometric analyses are almost always basically carried out.



## 7.6 Waste Management

**7.6.1** *In case of inspections in installations for the recycling / disposal of waste (i.e. authorized for operations R or D), how often the incoming waste is sampled and analyzed*

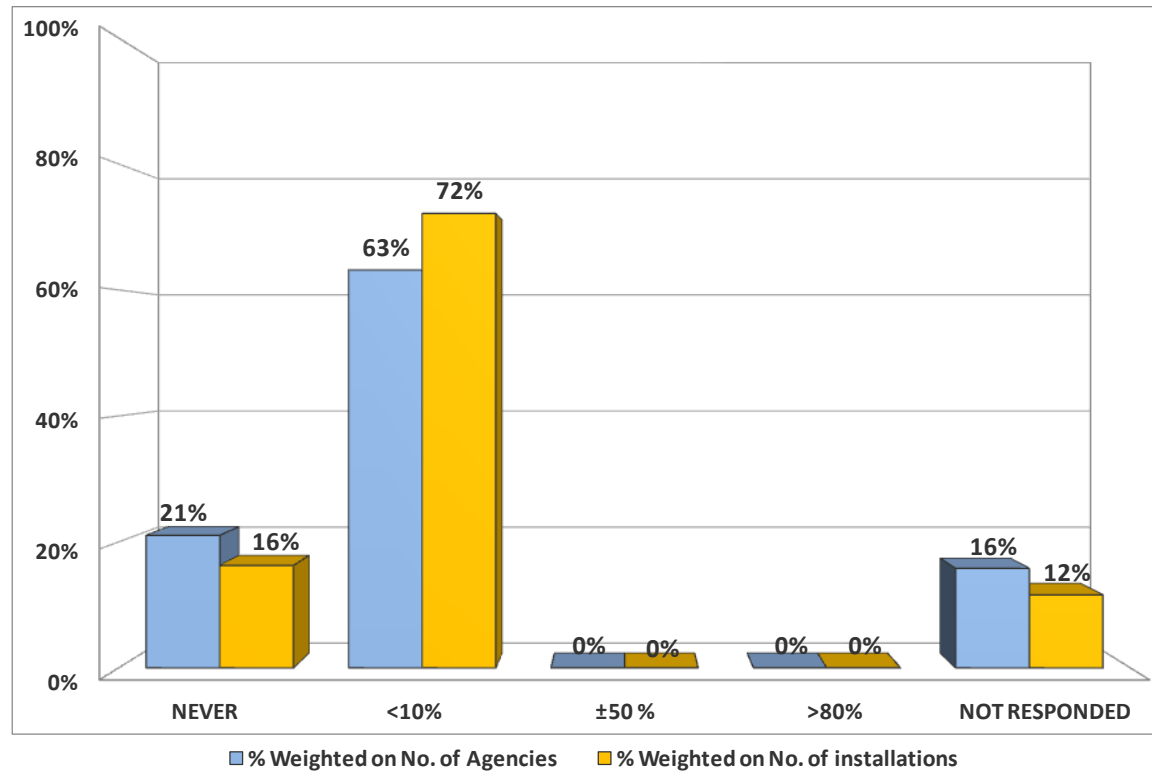
With the exception of an Agency that has responded positively, it is evident that this type of control is almost never performed.



## 7.6 Waste Management

**7.6.2** *In case of inspections in installations producing "end of waste" (Eow) or byproducts, how often such materials are sampled and analyzed*

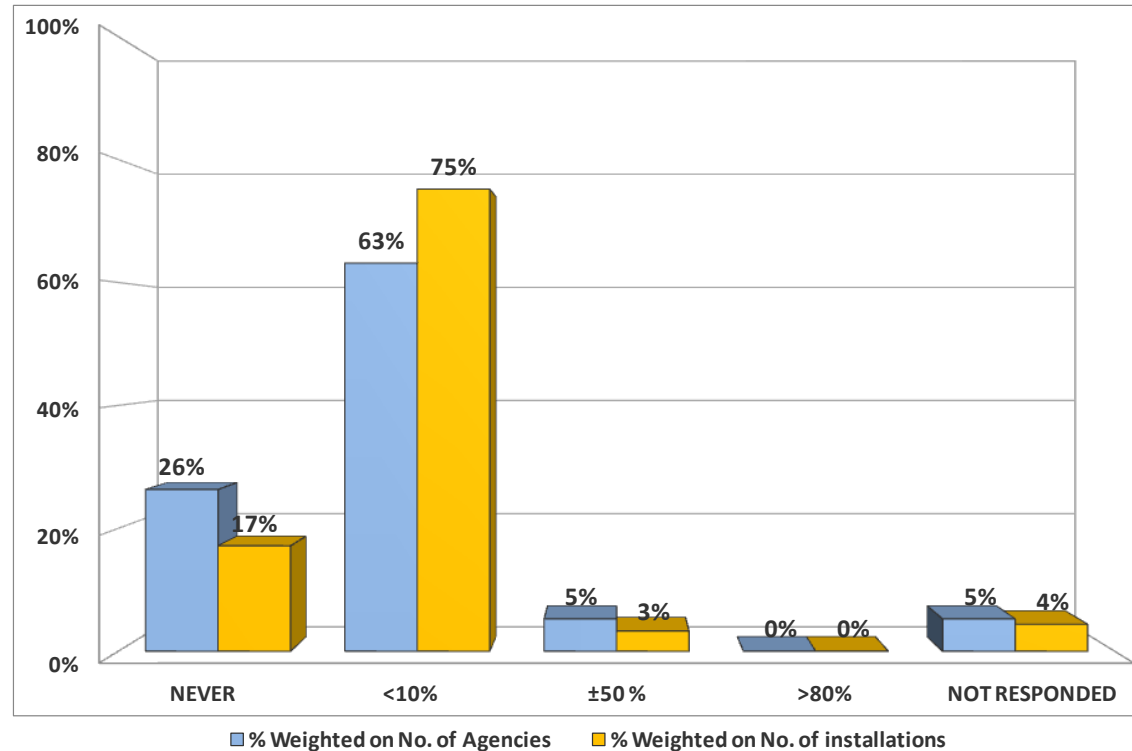
This type of control is rarely performed.



## 7.6 Waste Management

**7.6.3** During inspections in installations not specifically authorized to waste management - in which the production cycle will anyway generate waste to be recycled or disposed of - samplings and analyses of waste are carried out (e.g. to prove the correct attribution of the EWC code)

This type of control is rarely performed.



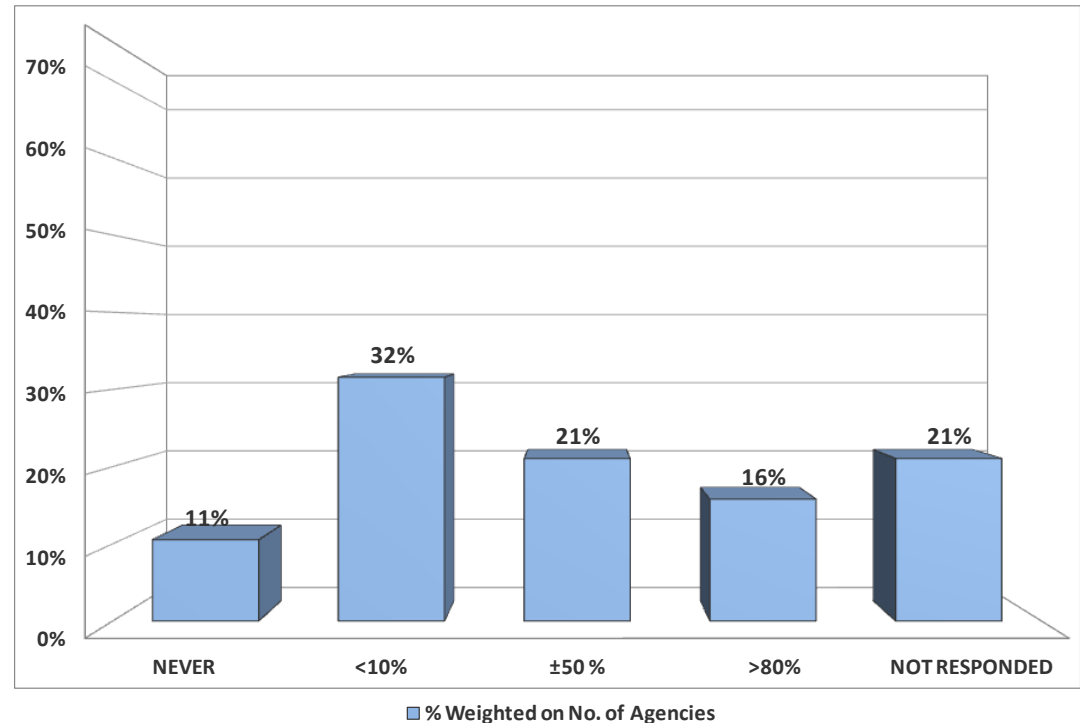
## 7.6 Waste Management

### 7.6.4 During inspections of landfills leachate is sampled

The results are weighted exclusively on Agencies, not having the number of landfills subject to IED.

The analysis shows that 37% of the Agencies carry out a good leachate sampling frequency, while 43% of the Agencies rarely perform or not perform this kind of control.

It should be noted that 21% of surveyed Agencies did not respond.

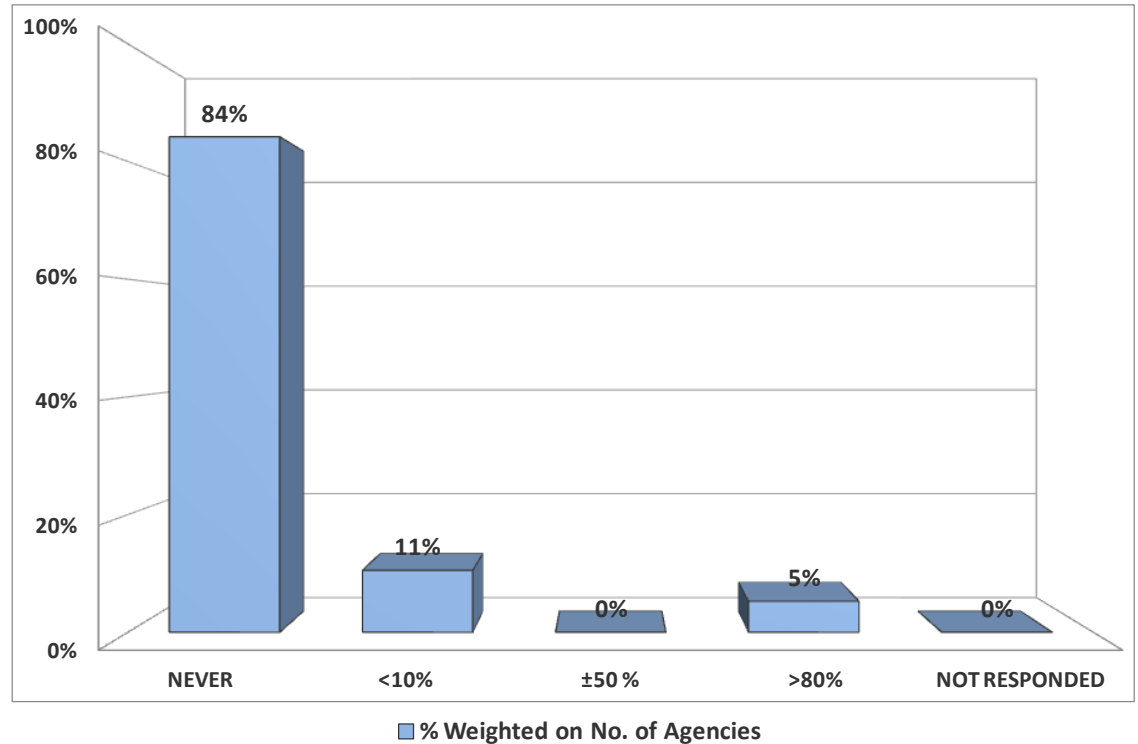


## 7.6 Waste Management

**7.6.5** *During inspections of landfills biogas is sampled in order to assess the quality for later use (eg. torch or motors)*

The results are weighted exclusively on the Agencies, not having the number of landfills subject to EIA.

The graph shows that 95% of the Agencies never or rarely perform this type of sampling. Only an Agency always carries out the sampling of biogas.

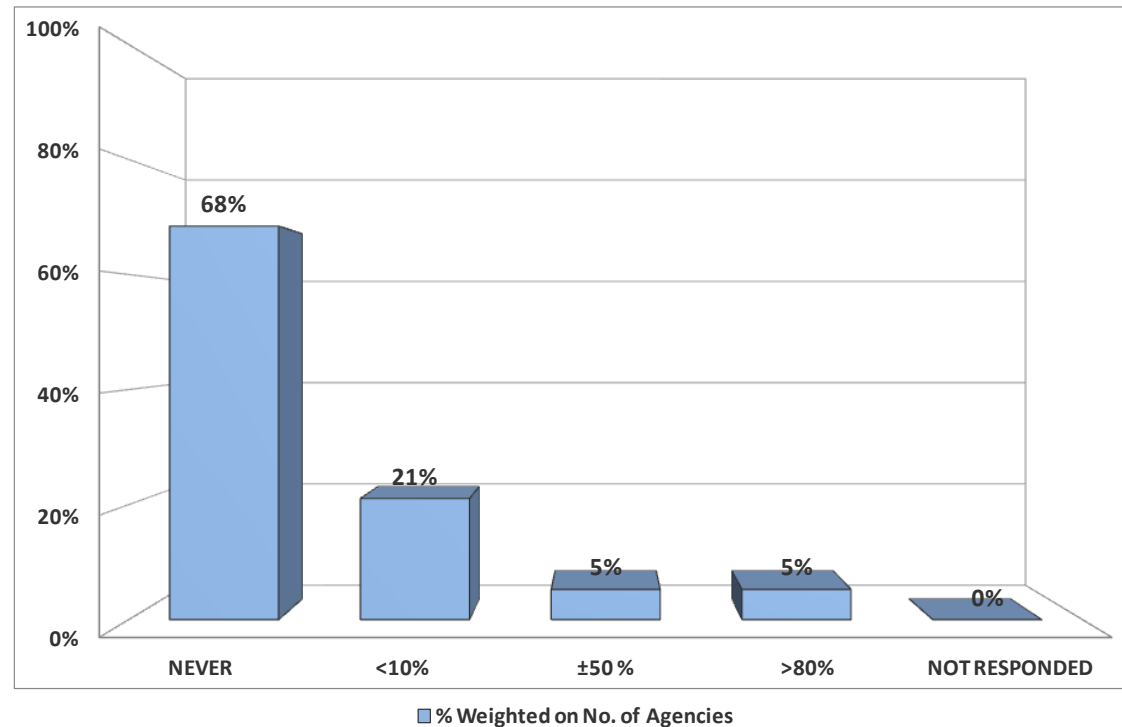


## 7.6 Waste Management

**7.6.6** *During inspections of landfill biogas is sampled for evaluation of diffuse emissions, lateral leaks or fugitive emissions*

The results are weighted exclusively on the Agencies, not having the number of landfills subject to EIA.

The graph shows that, with the exception of two agencies, this type of control is never performed.

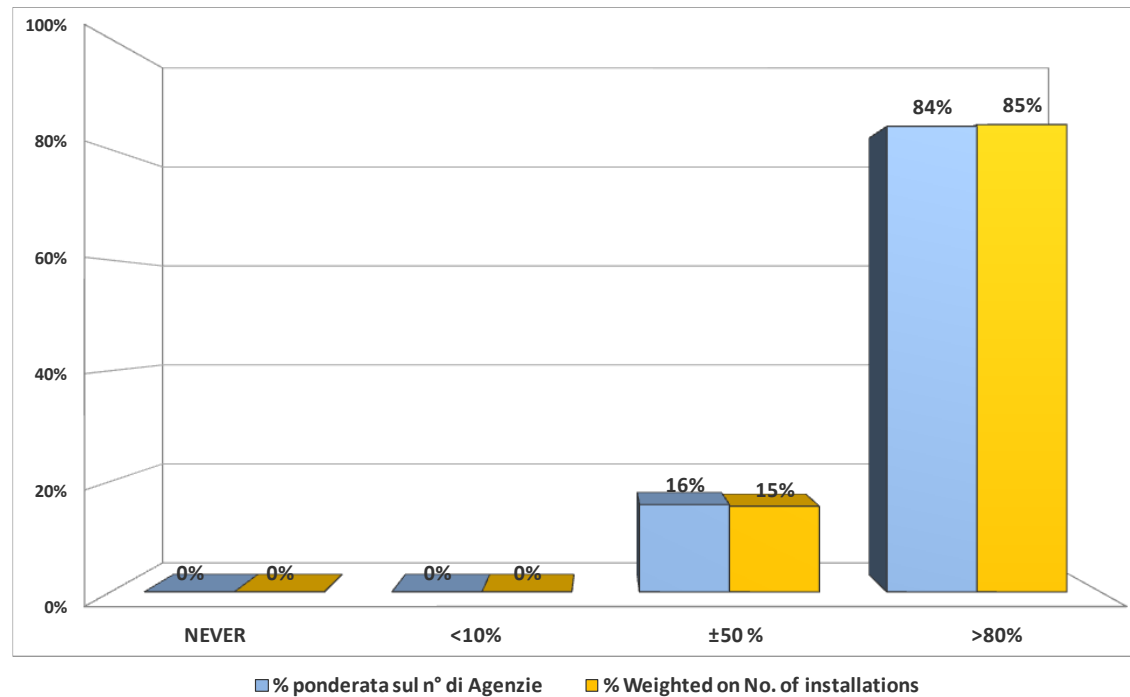




8. Verification by ARPA of requirements and obligations related to the following environmental parameters: wastewater, emissions into the atmosphere, waste products, noise, odor, protection of soil and groundwater.

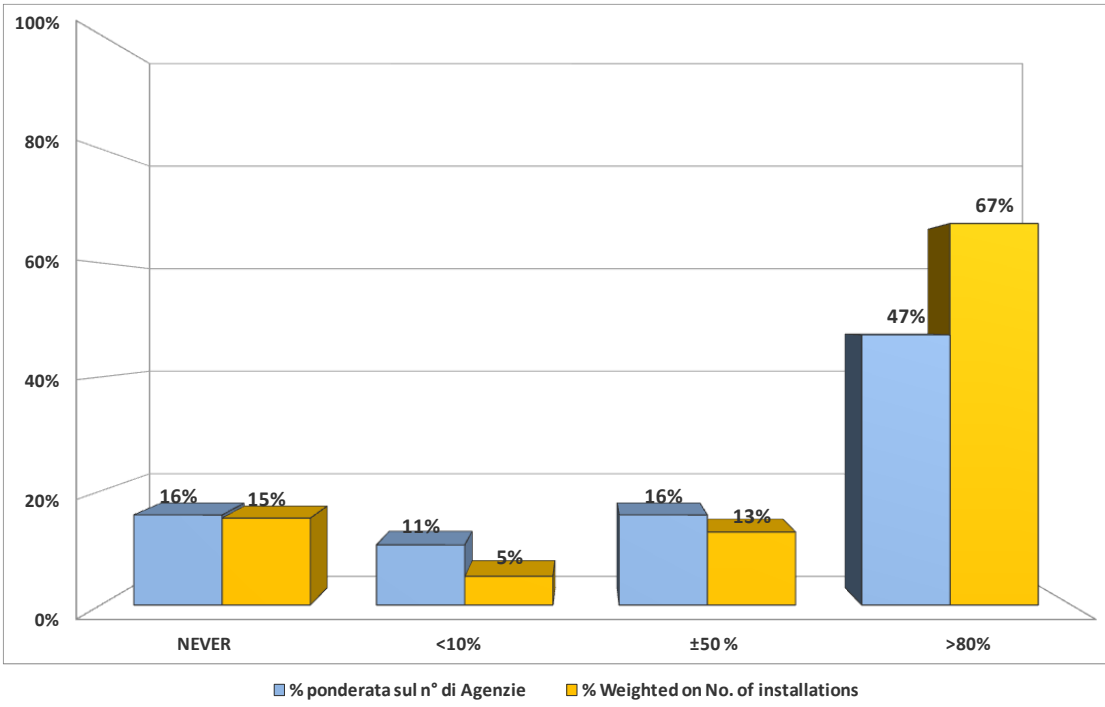
**8.1** *A detailed verification of the compliance of all the obligations of the IED authorization is carried out by ARPA*

In all EIA installations all the obligations of the authorization are verified in detail



**8.2** *Only the verification of the compliance of some obligations of the IED authorization is carried out by ARPA, focusing on those considered the most critical for the installation*

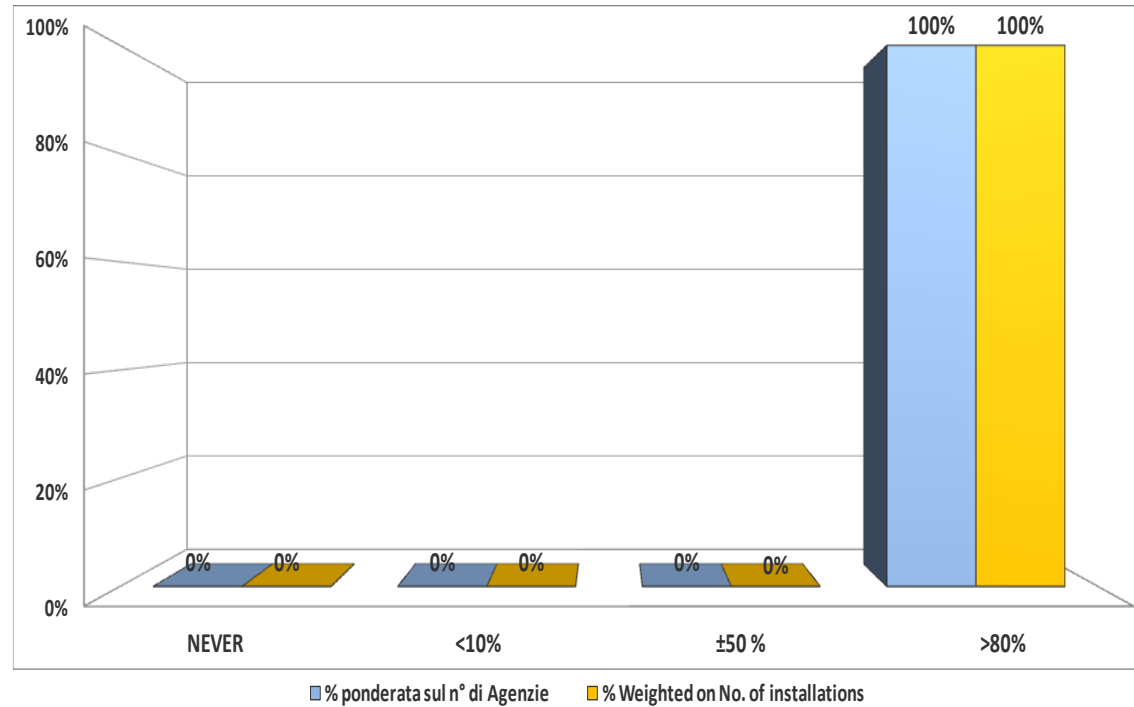
The results show that most of the Agencies, during audits, does not verify all the obligations but only some.



### 8.3.1 Soil

**8.3.1.1** *During the inspections, the integrity of the pavements, the presence of curbed areas, the drainage basins, the cleaning of the yards, etc. are verified*

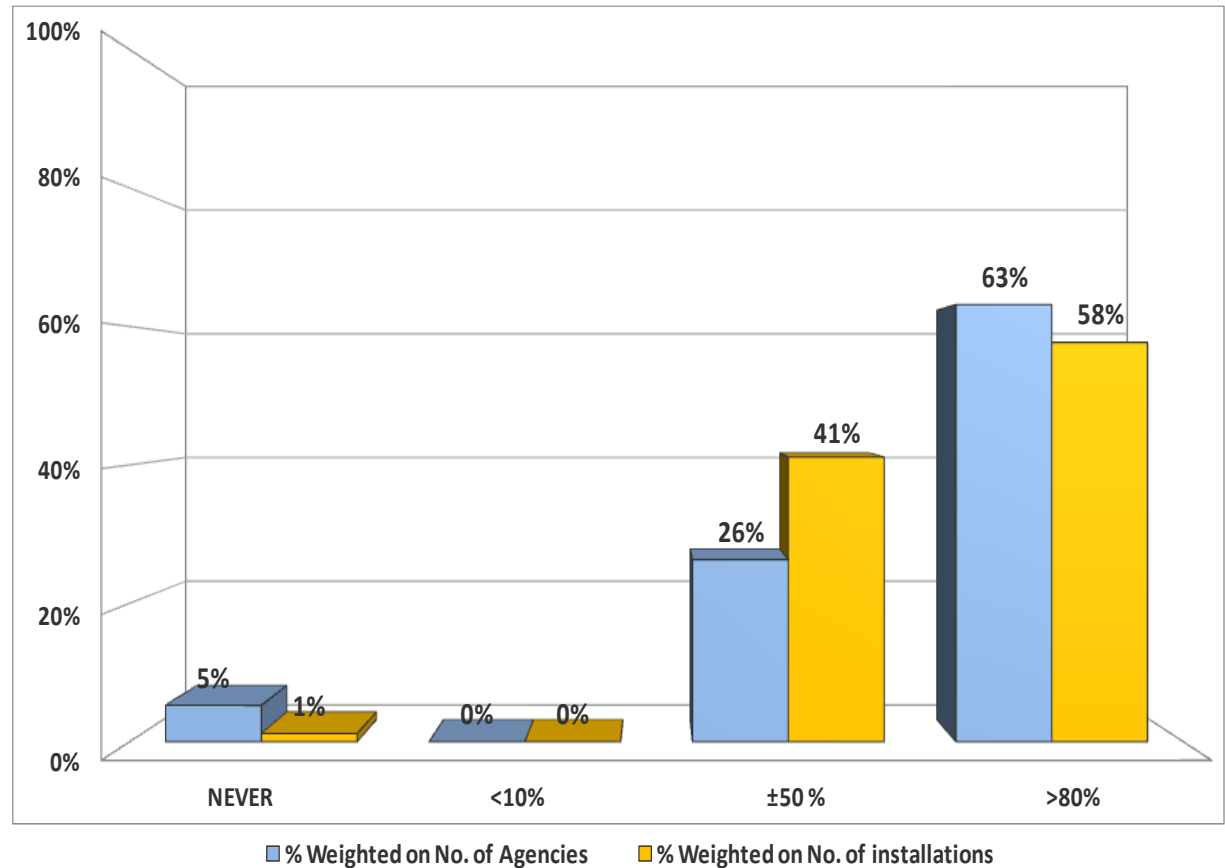
These issues are always verified.



### 8.3.1 Soil

#### 8.3.1.2a *Presence of vents in tanks and their connections to abatement equipment*

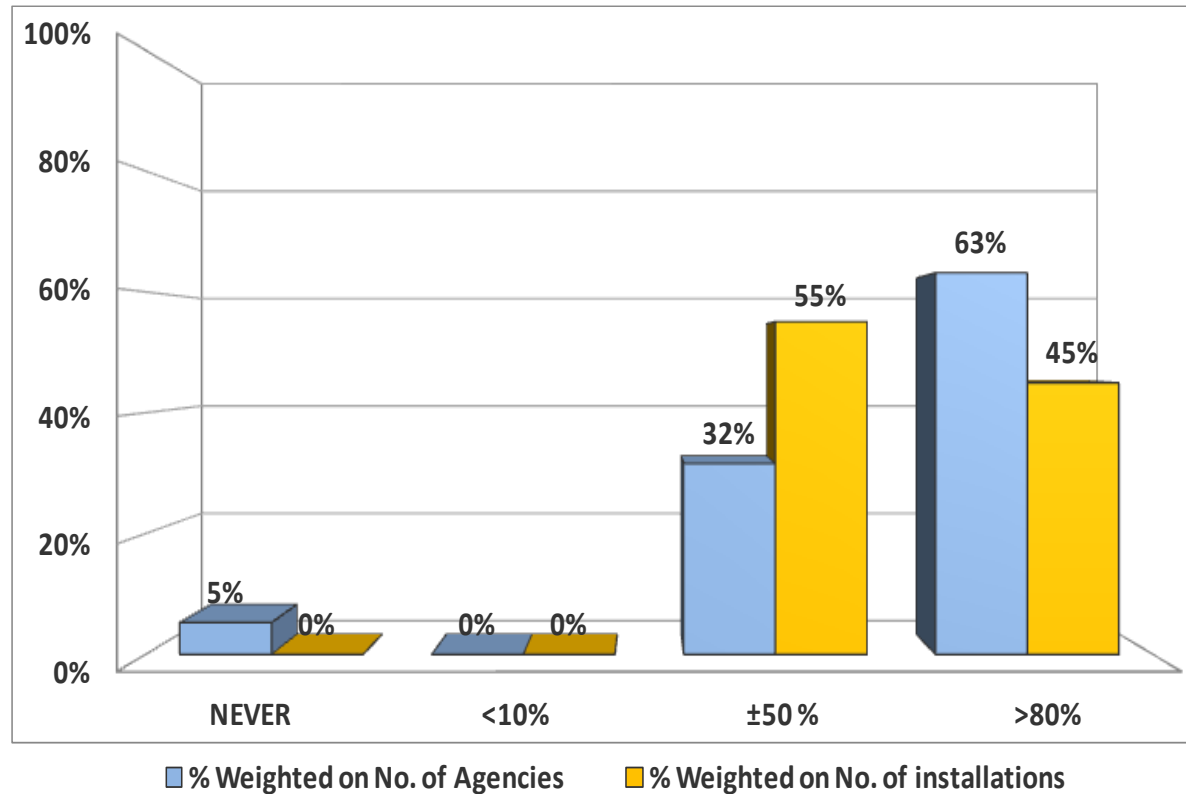
The results show that in almost installations inspected are conducted verification of tank's vents.



### 8.3.1 Soil

#### 8.3.1.2b Presence and proper design and construction of drainage basins

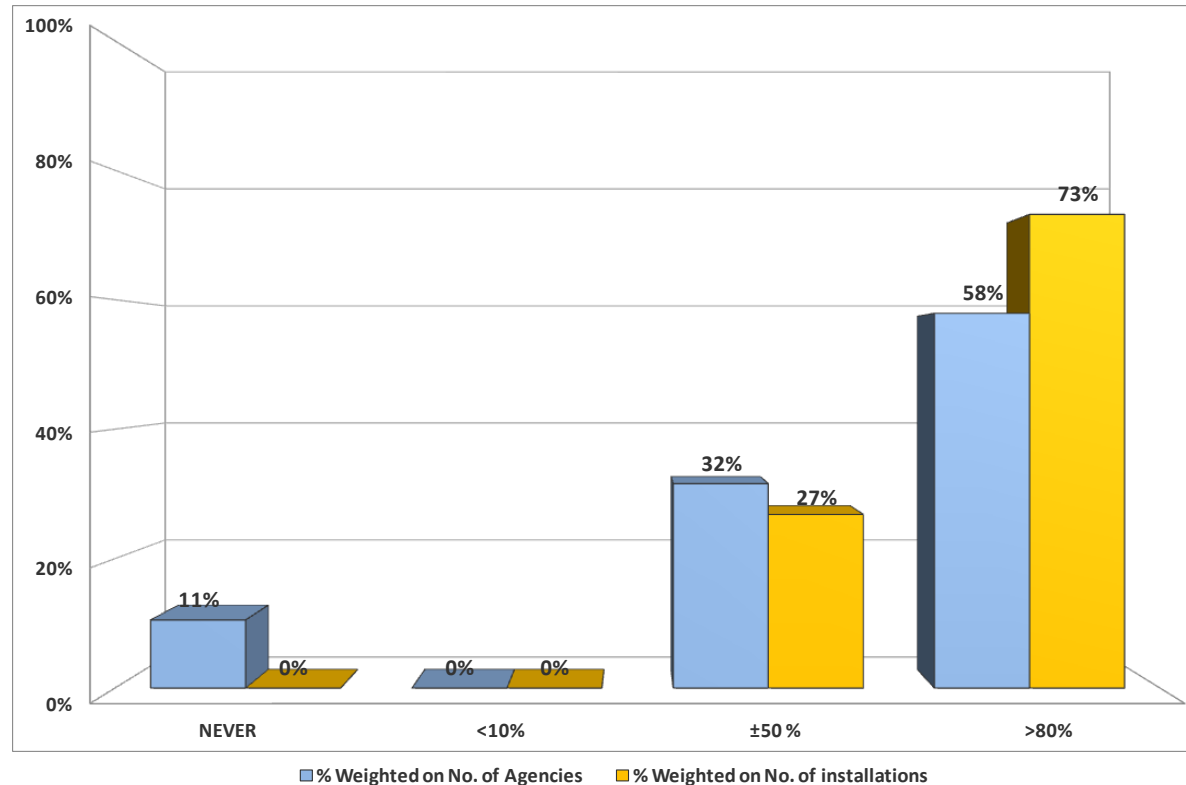
From the results, it is clear that in almost all installations subject to audit, verifications of the correct sizing of reservoirs are carried out.



### 8.3.1 Soil

#### 8.3.1.2c Execution by the operator of any testing for leaks and / or structural integrity

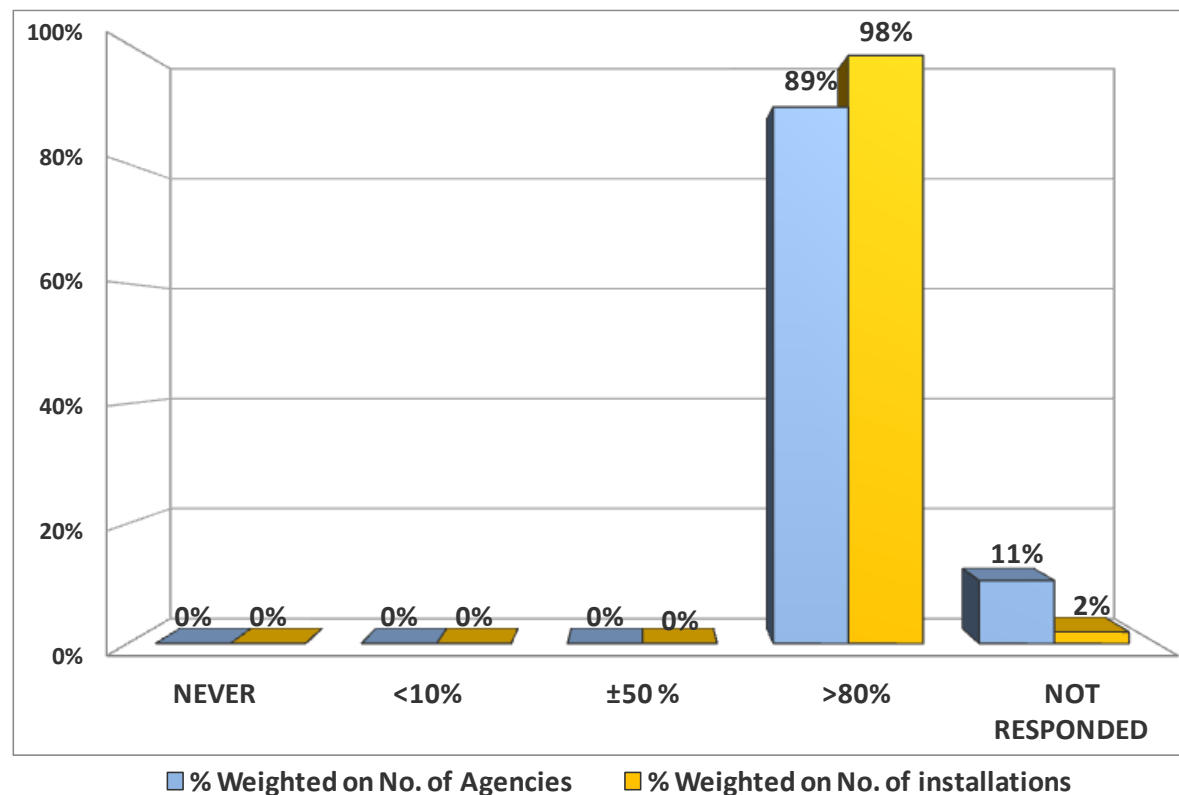
The evaluation of the actual verification by the operator of the structural integrity is carried out basically in all EIA installations.



### 8.3.2 Waste

#### 8.3.2.1 *The proper storage and correct identification of waste in the installation is verified*

The verification of the proper storage as well as the correct identification of the waste present in the installations is basically carried out at every audit.

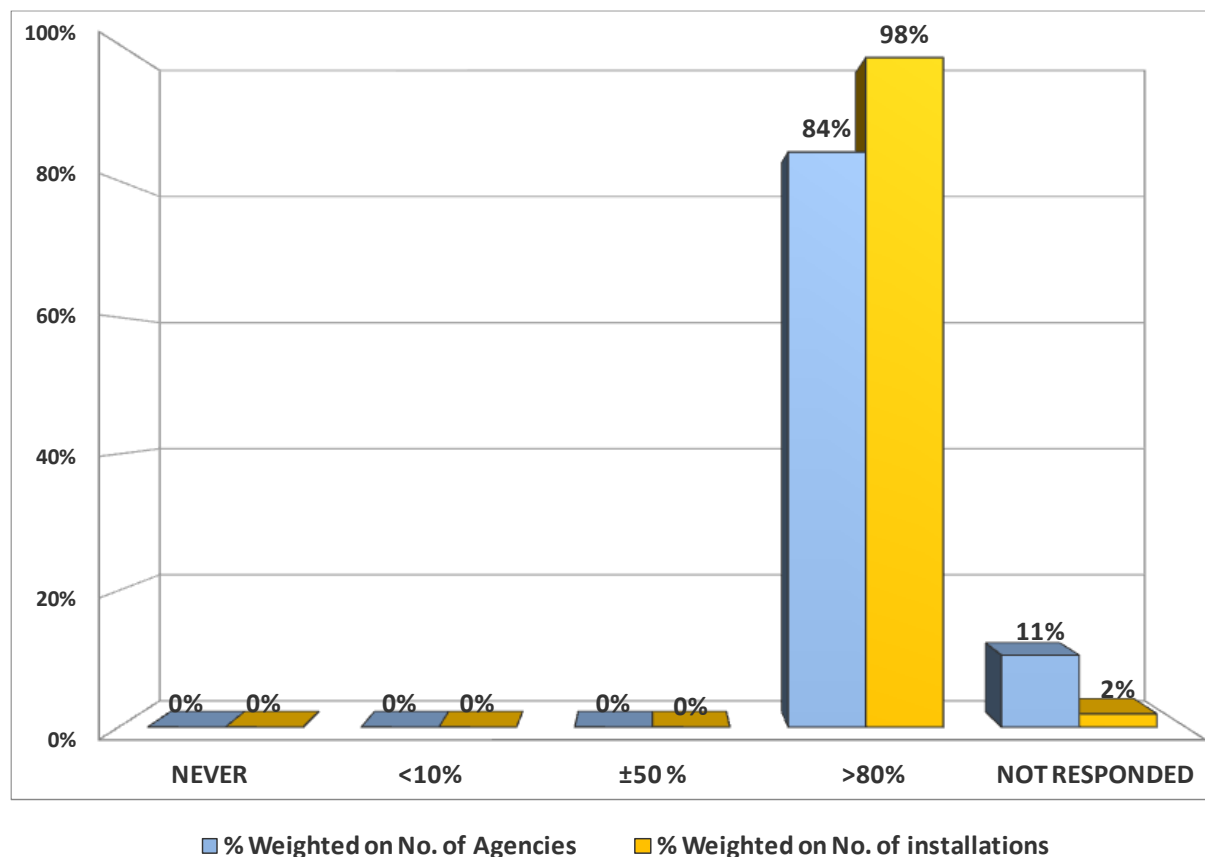




### 8.3.2 Waste

#### 8.3.2.2 *The proper compiling and filing of the loading / unloading registers of waste is verified*

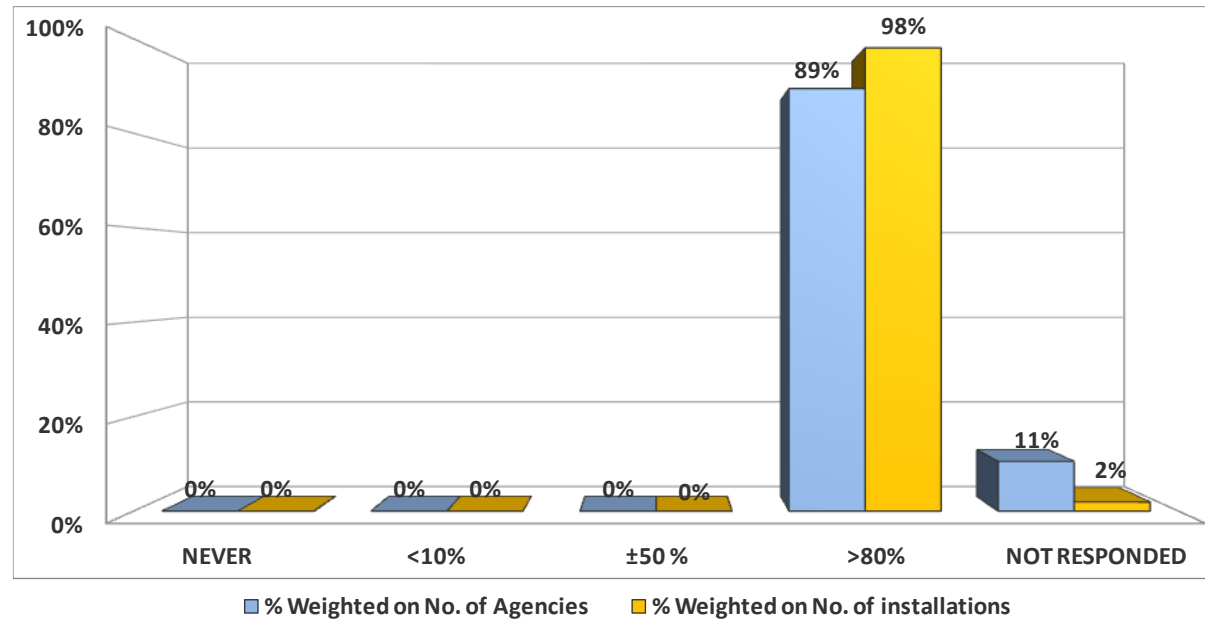
The analysis of the results shows that basically in all the installations, during audits, the verification of the storage and filling of loading / unloading registers of waste is conducted.



### 8.3.2 Waste

**8.3.2.3** *The proper compiling and filing of the 4th copy of FIR (waste transportation forms) is verified.*

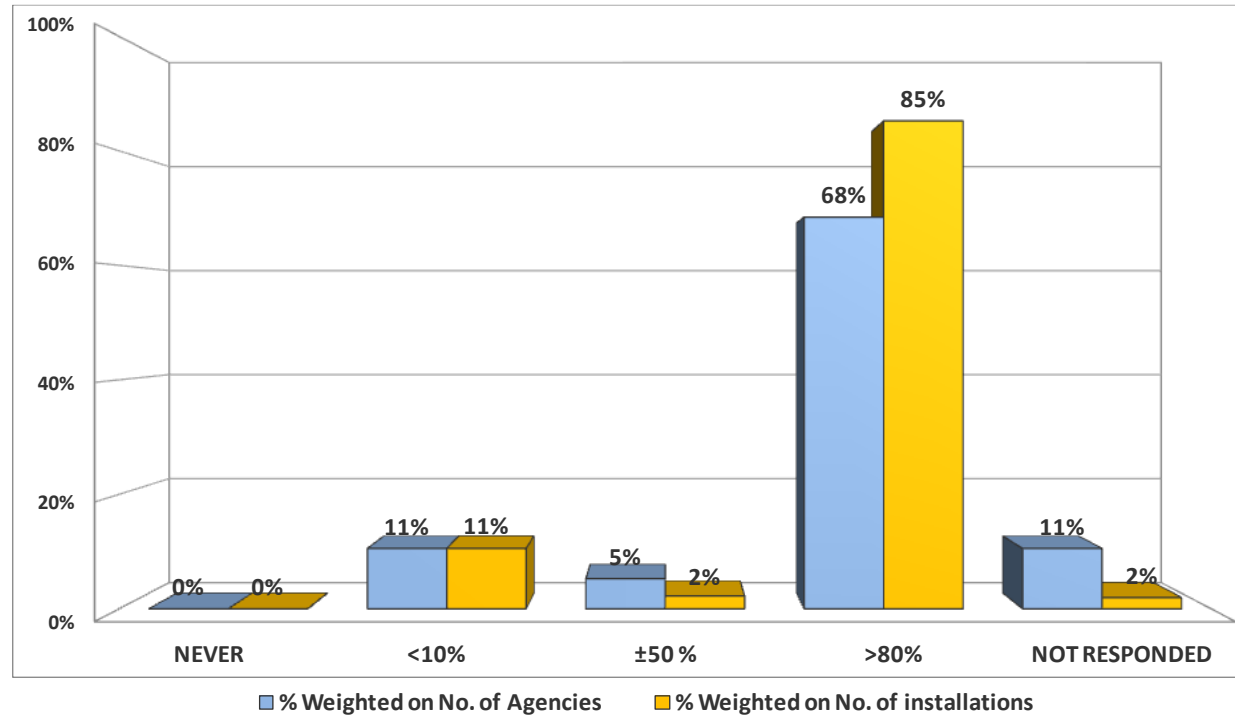
During audits, the FIR (waste transportation forms) are basically always verified



### 8.3.2 Rifiuti

#### 8.3.2.4 *The registration (if due) and the proper compiling of SISTRI, the national online register of waste, is verified*

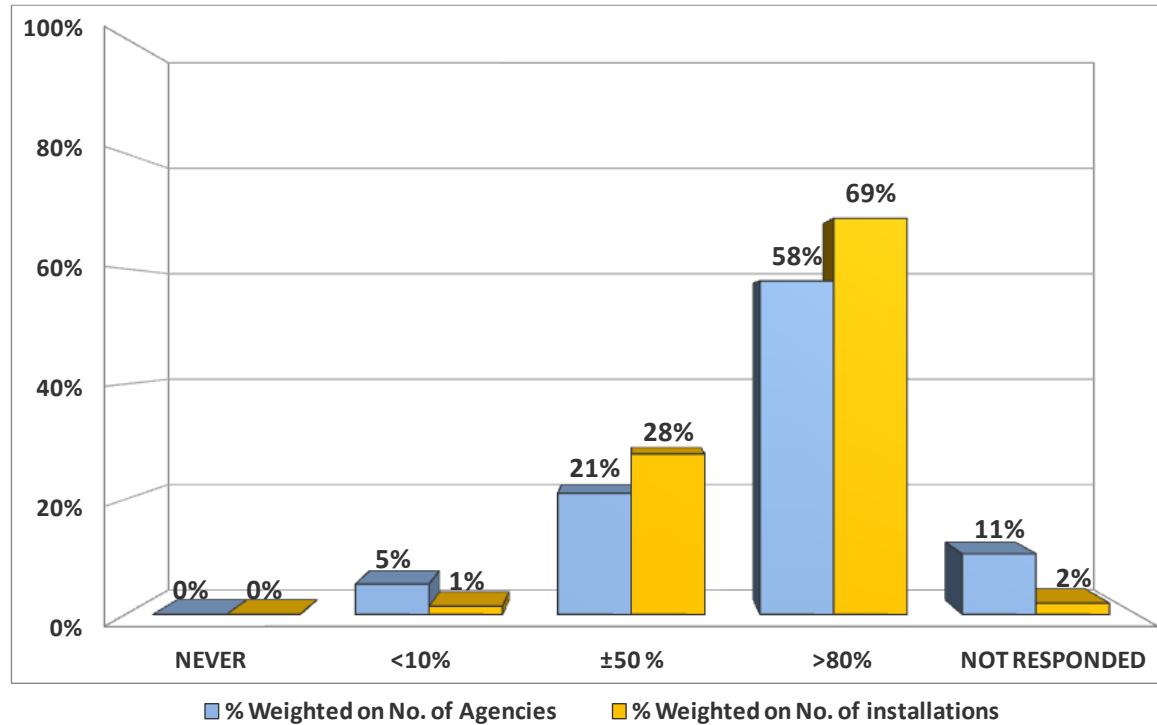
In general it is noted that the registration to SISTRI is always verified, except in some regions, which correspond to 11% of the installations, where such control is carried out from time to time.



### 8.3.2 Waste

#### 8.3.2.5 *Verification that companies managing the installation's waste are properly authorized for the purpose is carried out*

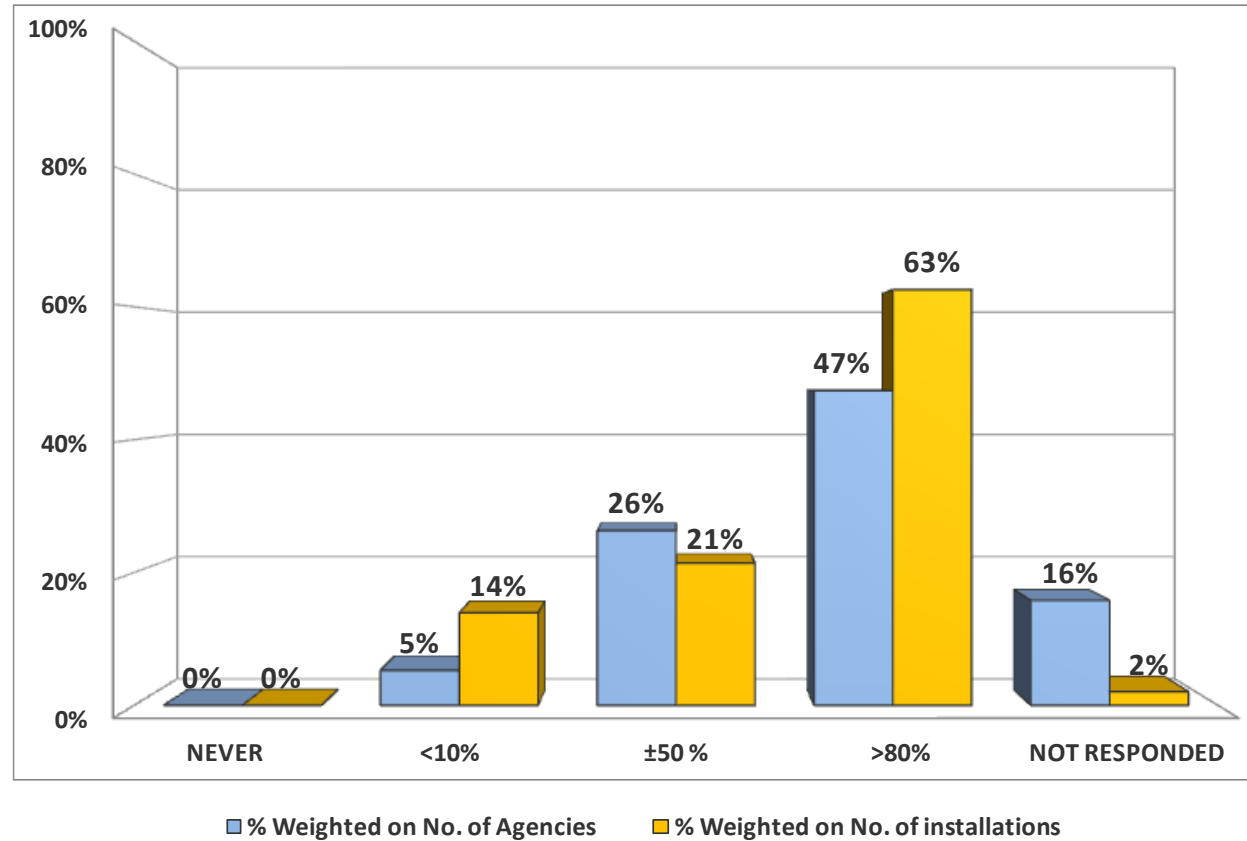
In most audits the verification of the correct final destination of the waste is conducted.



### 8.3.2 Waste

#### 8.3.2.6 Verification of the waste transportation authorizations is carried out

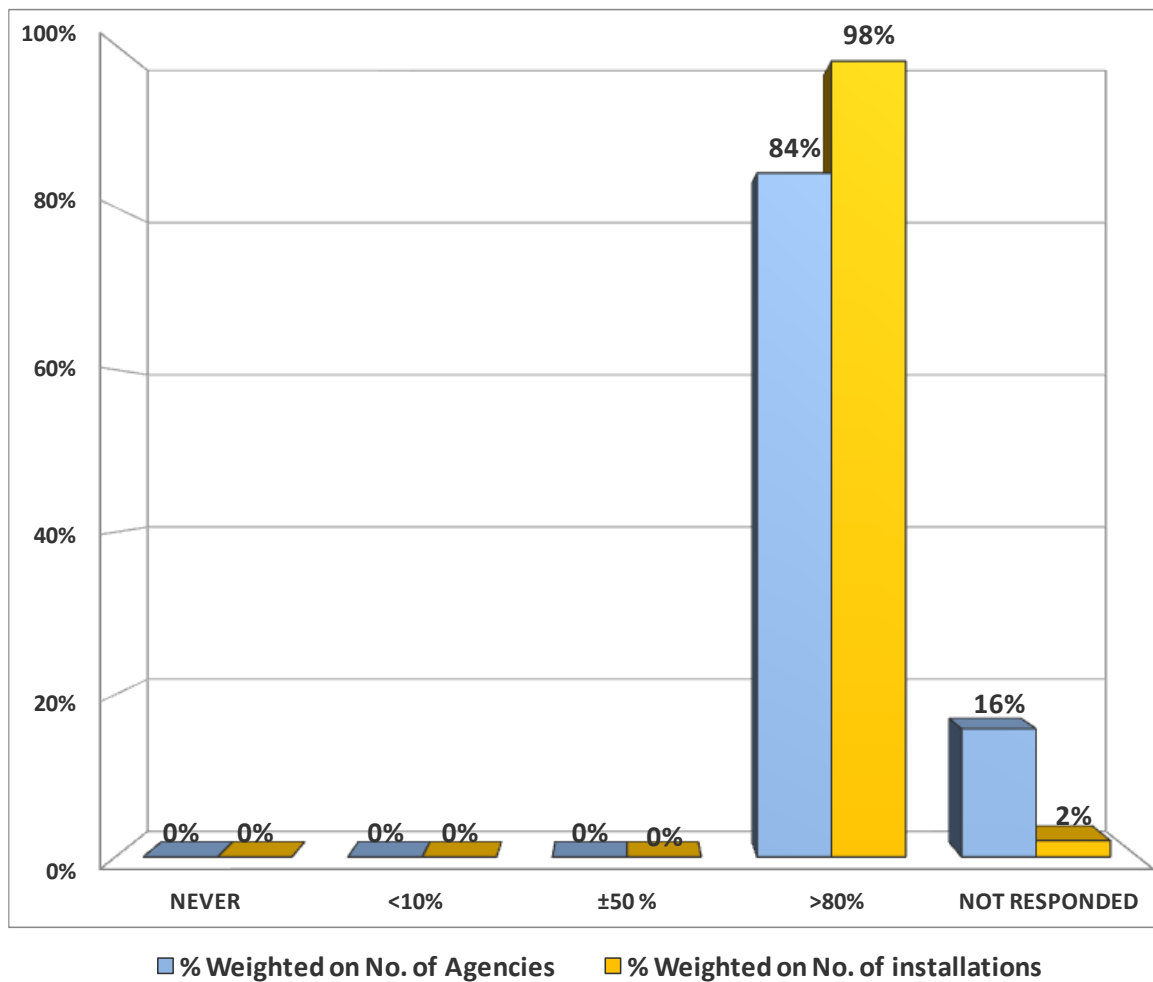
Usually the waste transportation authorizations are also verified



### 8.3.2 Rifiuti

**8.3.2.7** *The analyses for waste characterization before disposal/recycling, if required, are verified*

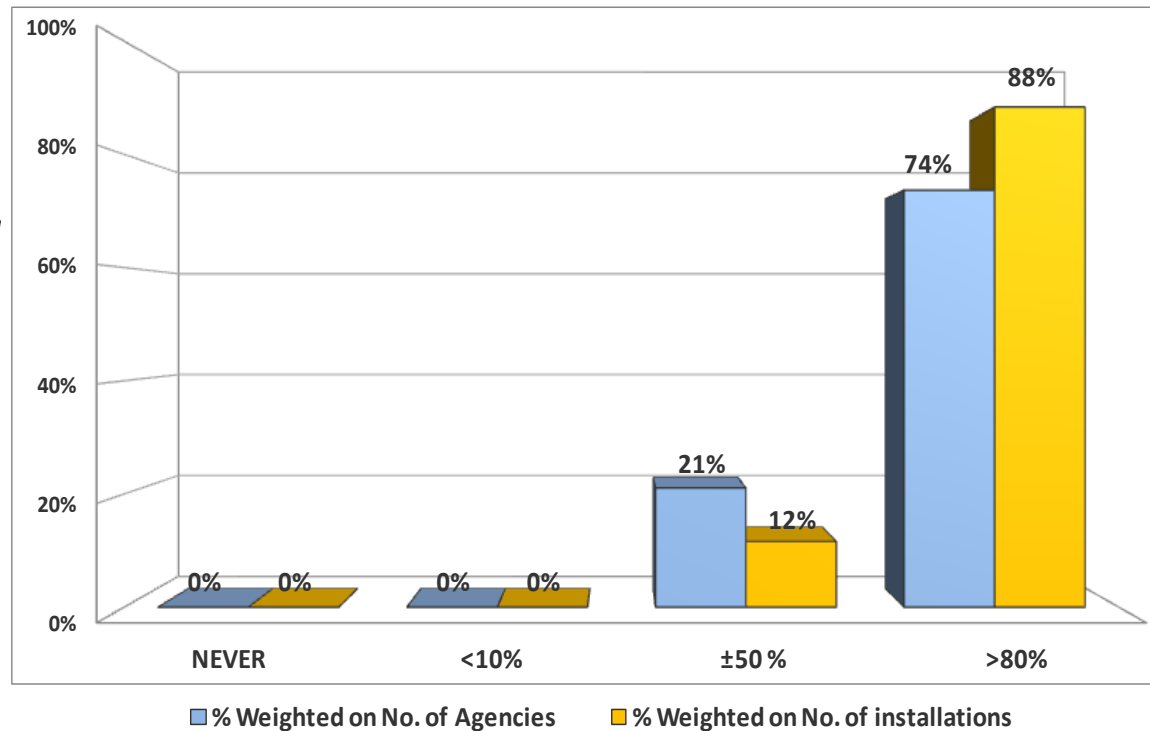
The analysis of characterization of waste prior to disposal / recovery, where required, is always verified.



### 8.3.3 Installation maintenance

**8.3.3.1** *Verification of documents attesting the maintenance of the critical parts of the plants (eg. pumps, control systems, fans, depuration systems, etc.) is carried out*

The verification of the documentation about the maintenance is always carried out.



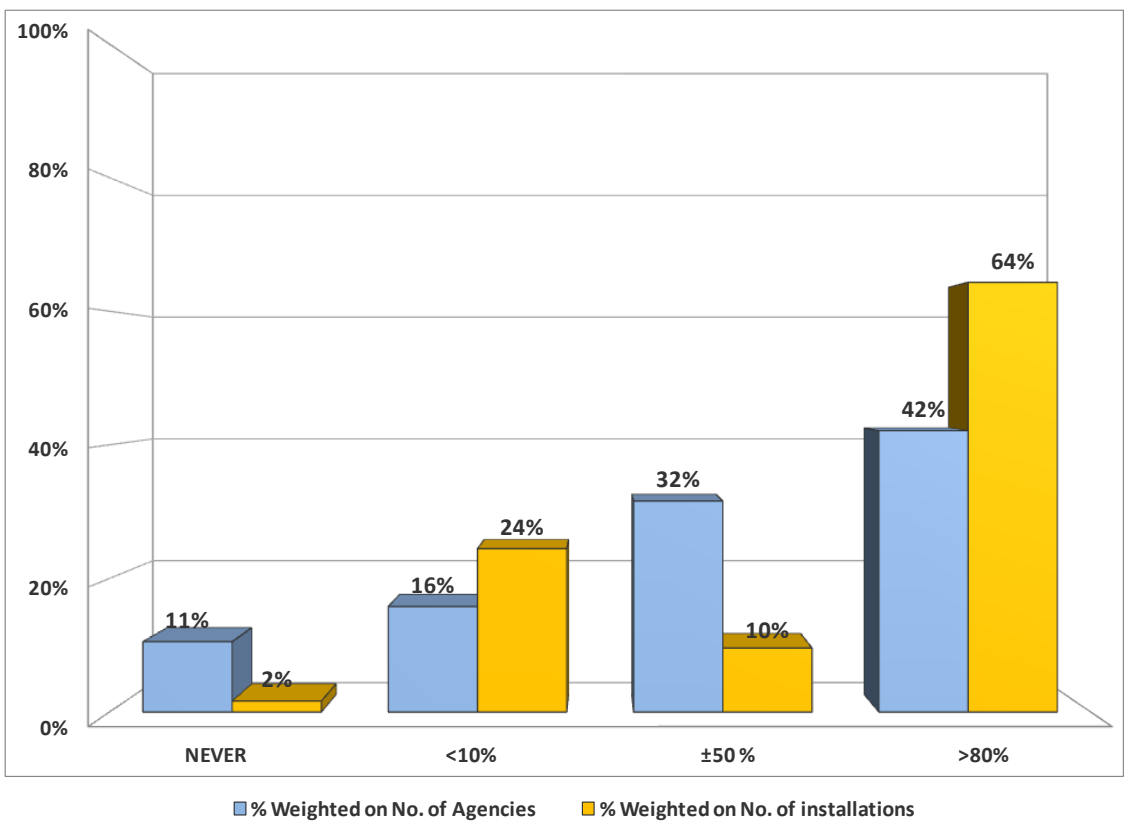
## 9. Assessment of BAT's adoption



**9.1 Assessment of BAT's adoption**  
*(Best Available Techniques) during environmental inspections*

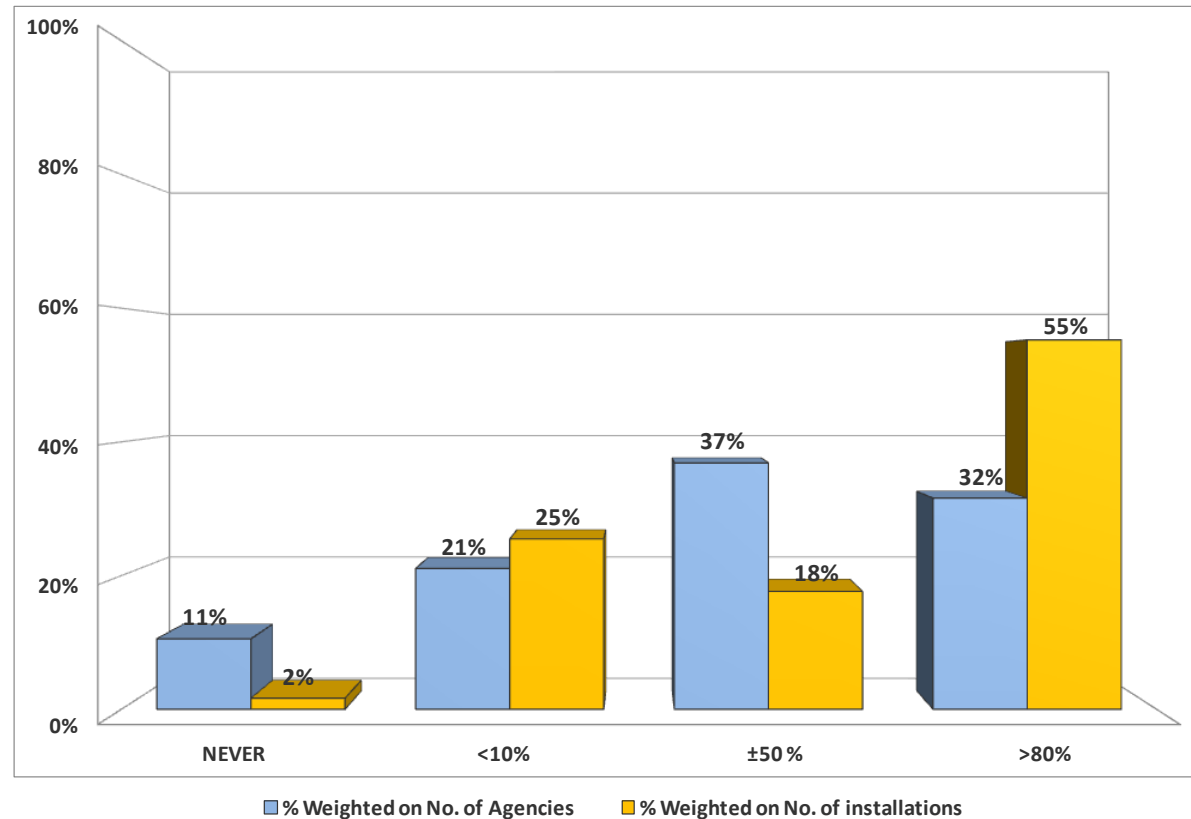
The results show that only about 40% of the Agencies verify BATs' adoption. The result related to the number of installations rises to over 60%, actually smaller-sized Agencies are the ones with the most critical issues.

This item is strategic to promote compliance to IED Directive, because of these it's necessary that Italian Agency System (SNPA) improve its performances.



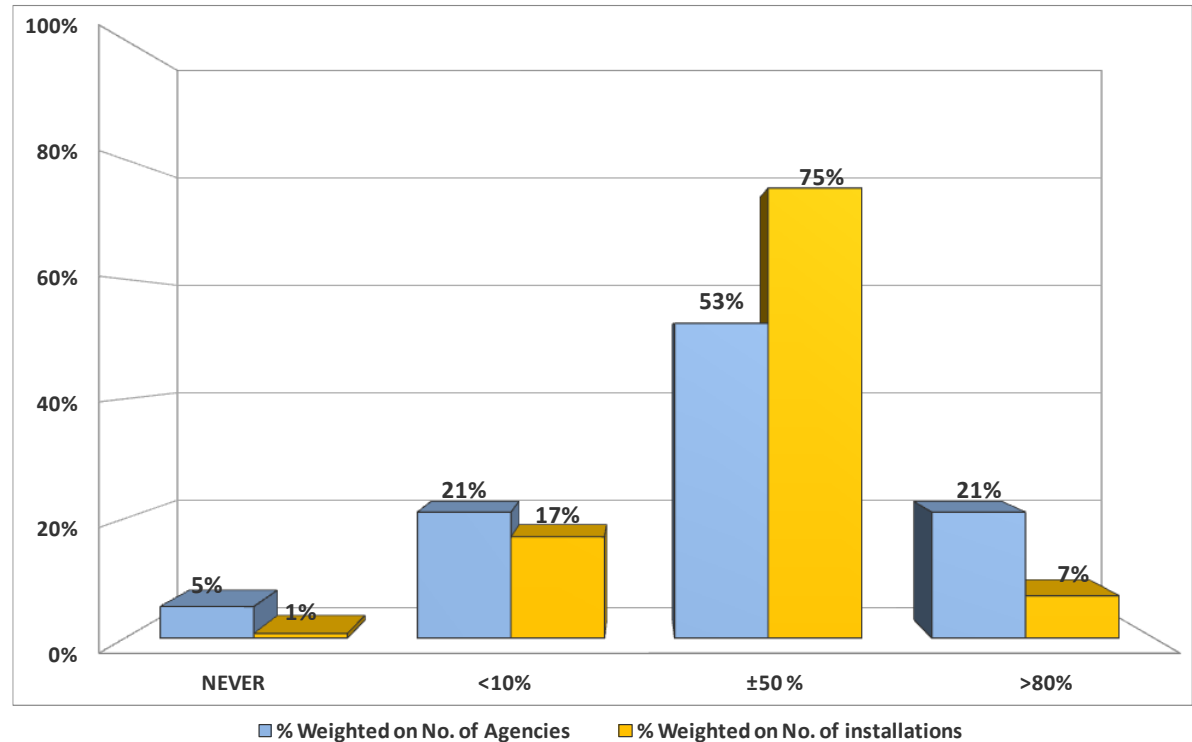
## 9.2 Are provided guidance or suggestions about the application of BAT not implemented?

It is believed that the partially positive response is influenced by the previous one; however is noted a percentage of approximately 30% (in terms of both agencies and installations) where guidance is not provided.



### 9.3 *Is the degree of knowledge of Agency' staff satisfactory for the assessment of the new BAT' s adoption?*

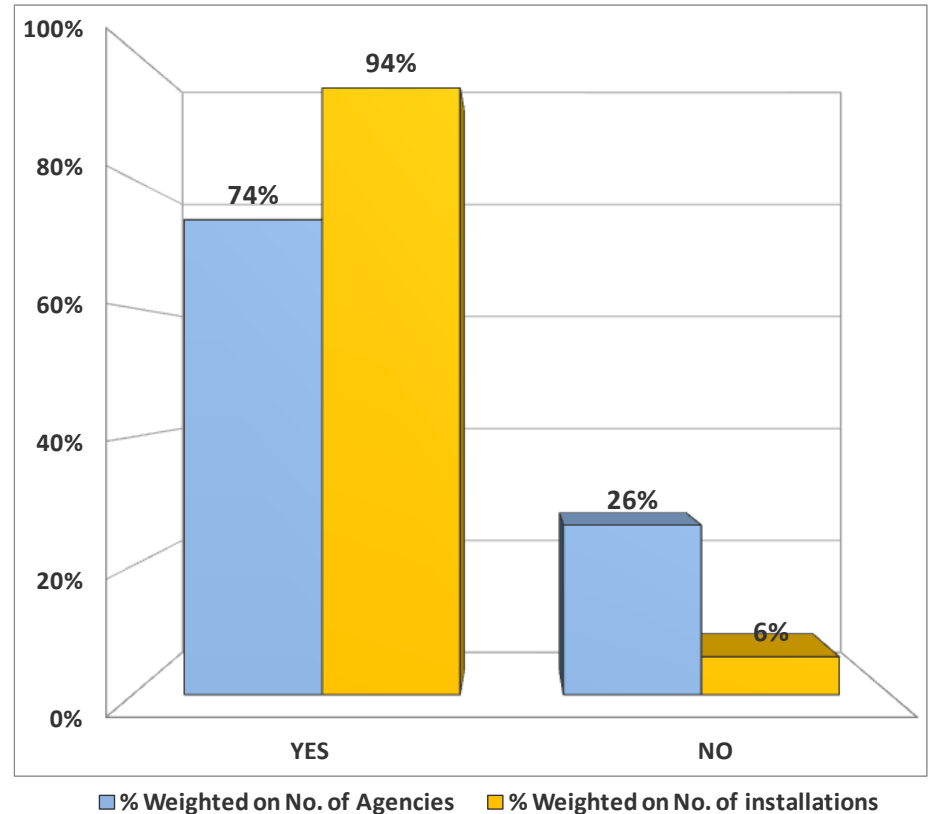
It is believed that the degree of knowledge is counted in about 50%; these results are not easy to evaluate; as in the first response, percentages of installations is greater (the big-sized regions belong to this percentage).



# 10. Promotion of compliance and continuous improvement

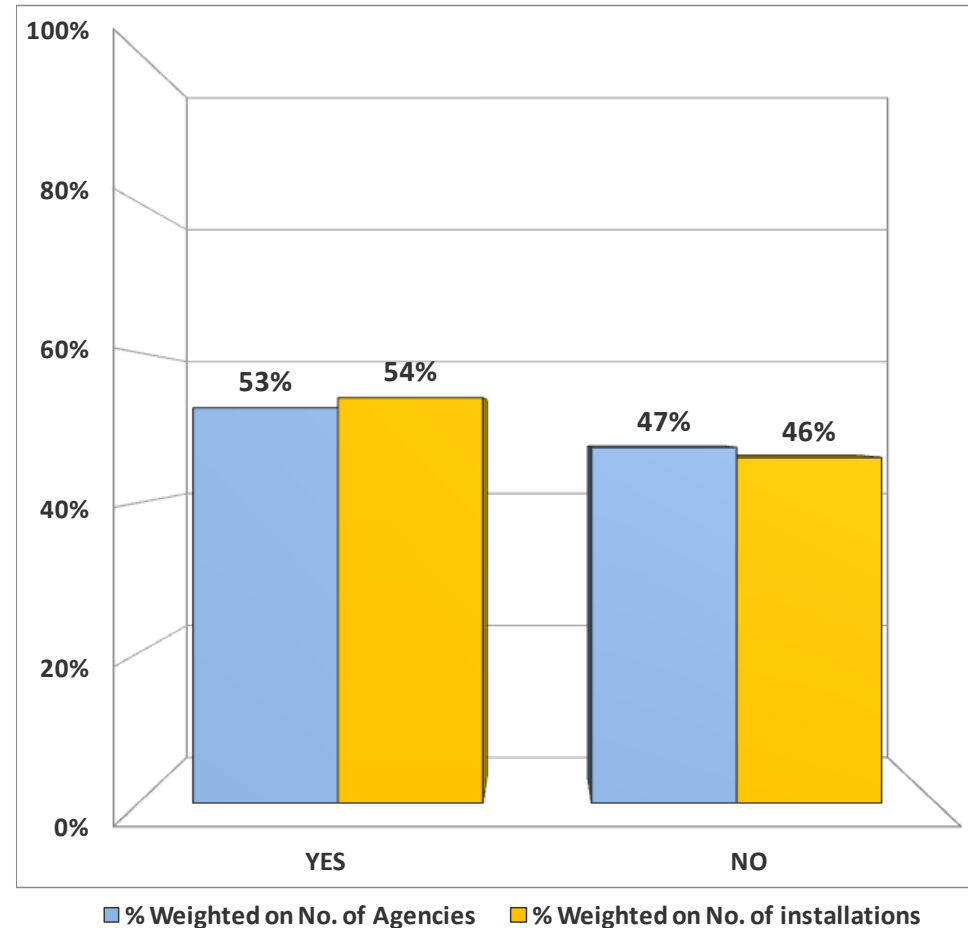
**10.1 Promotion of continuous improvement is included in the final report of ARPA**

74% of Agencies, which represent almost all regional installations, promote continuous improvement. Among those which do not promote it in the final report, an Agency reports the appropriate provisions to be included in the permit writing phase.



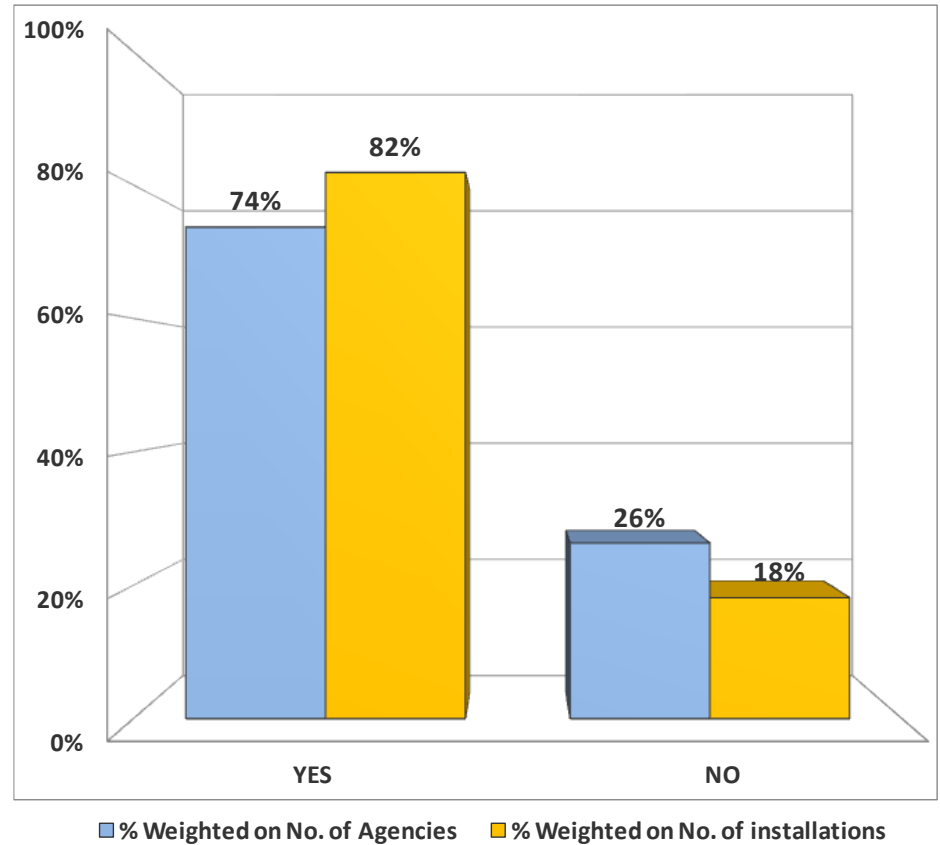
**10.2** *It is suggested to the operator the application of environmental management systems (eg ISO 14001, EMAS) even not certified*

The number of Agencies that suggests the application of environmental management systems to the operator is basically equal to the number of Agencies that does not. The same applies to installations.



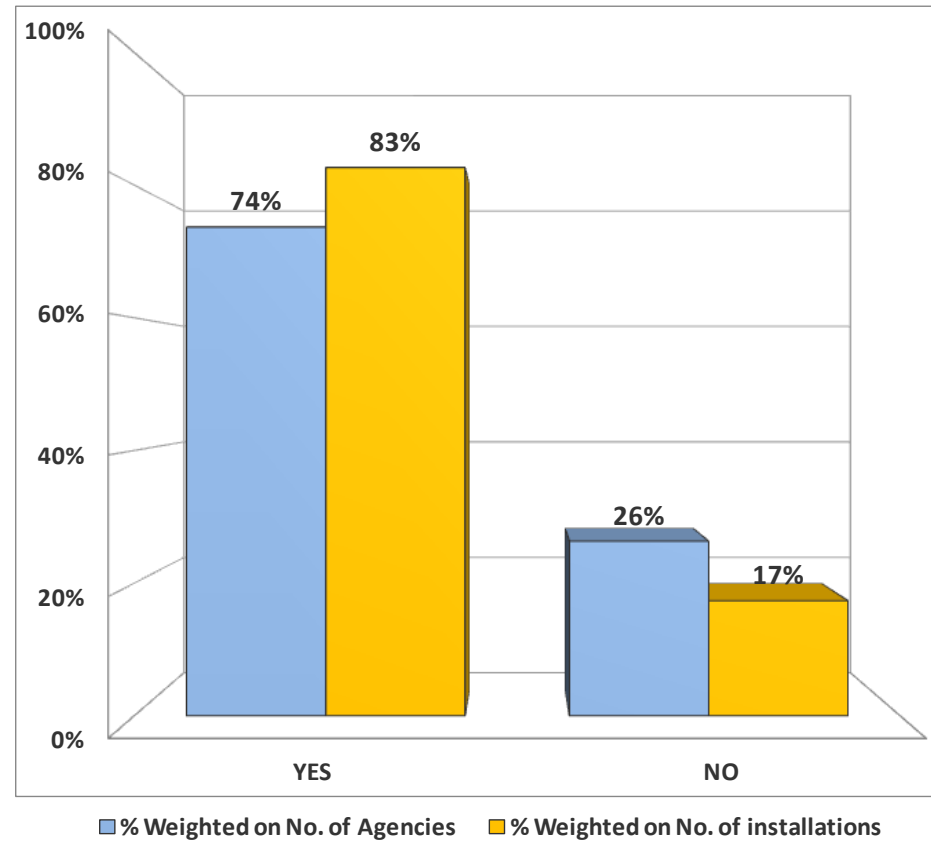
### 10.3 Actions aimed at reducing the use of water resources

Three-quarters of the Agencies, which represent 82% of EIA installations, suggest measures to reduce the use of water resources to the operators



## 10.4 Actions aimed at reducing the use of energy resources

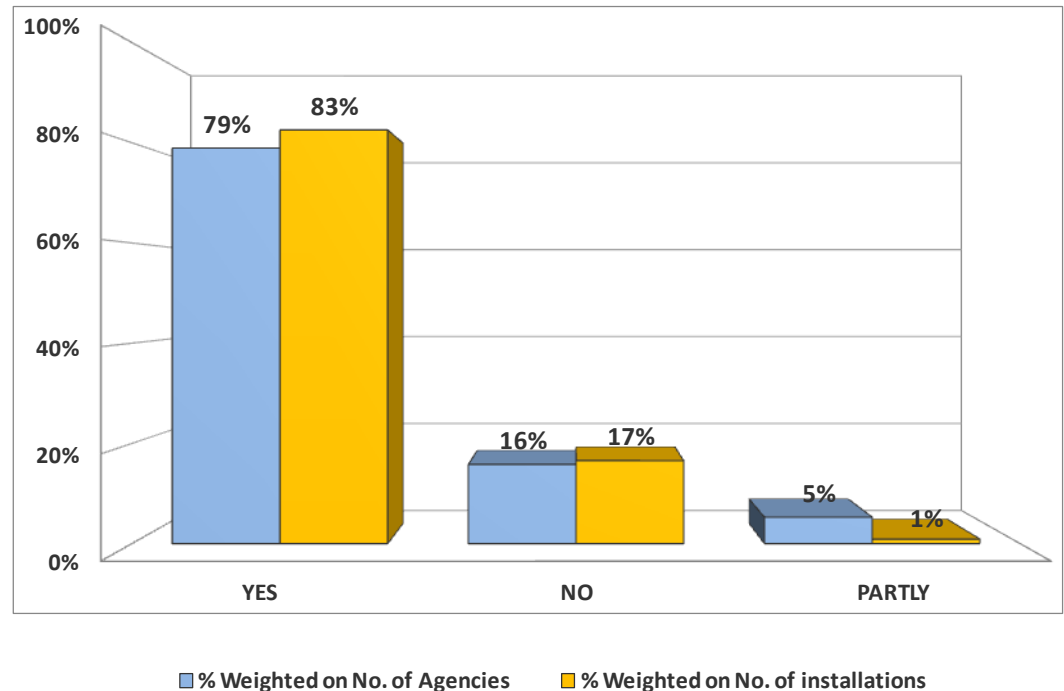
Three-quarters of the Agencies, which represent 83% of EIA installations, suggest measures to reduce the use of energy resources to the operator.





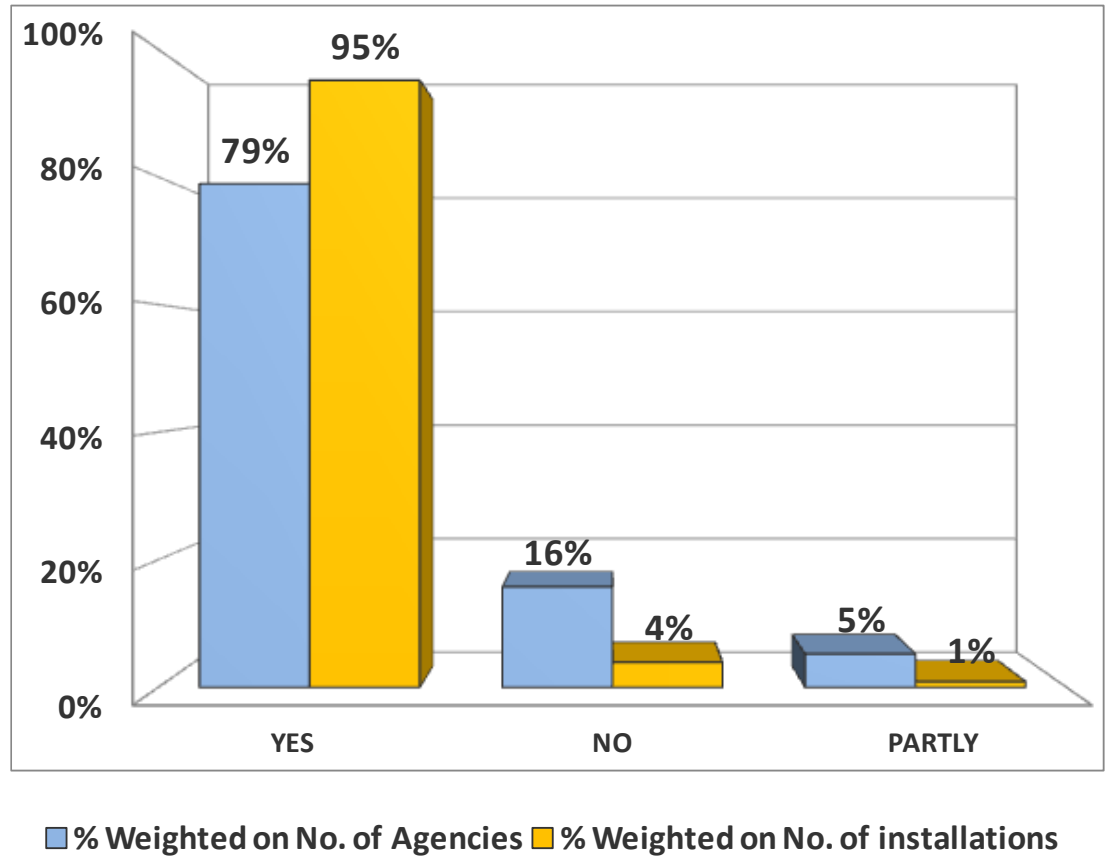
### 10.5 Emission performance is promoted (WATER, AIR NOISE ECC.)

It is evident that most of the Agencies, representative of the majority of installations, promote the improvement of emission performance of installations.



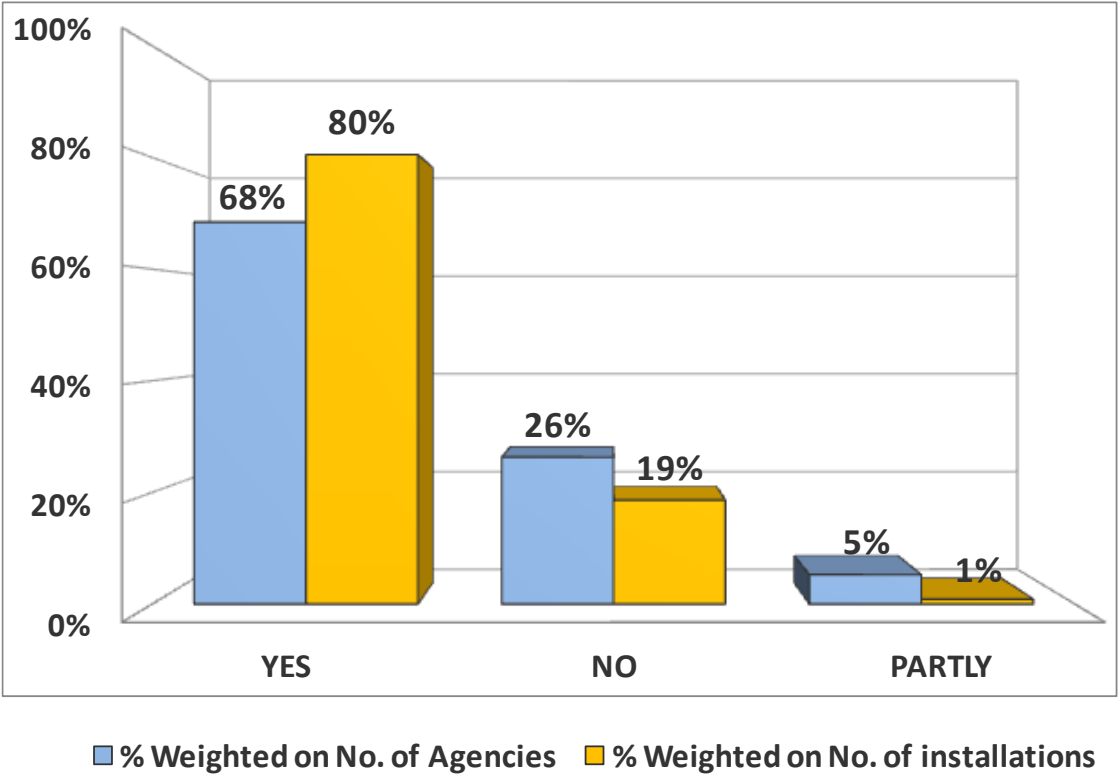
## 10.6 Actions aimed at improving waste management

Almost all installations are invited to promote improvement actions in waste management.



**10.7** *Replacing hazardous substances by less hazardous or non-hazardous*

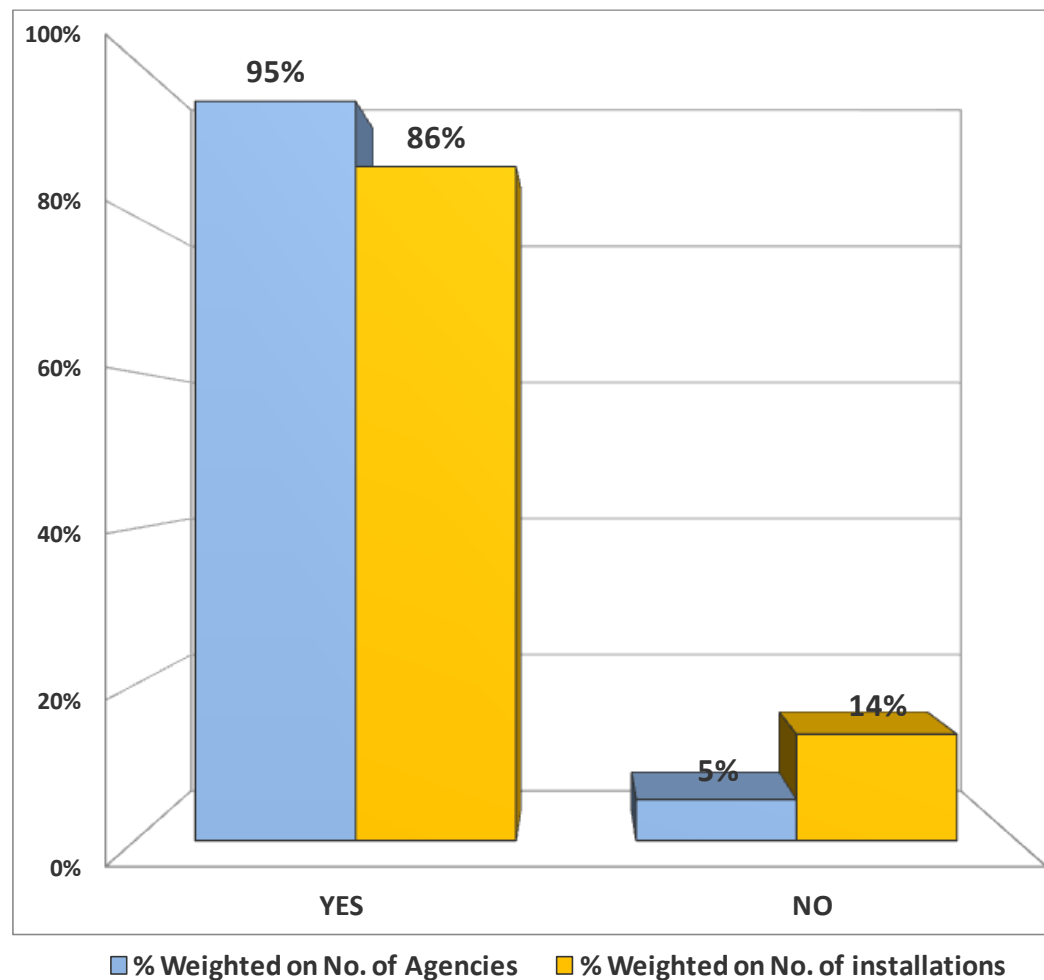
68% of the Agencies, representative of 81% of the installations, suggests the substitution of hazardous substances used in the production cycle by others which are less, or that are not hazardous



# 11. Directions to the Competent Authority

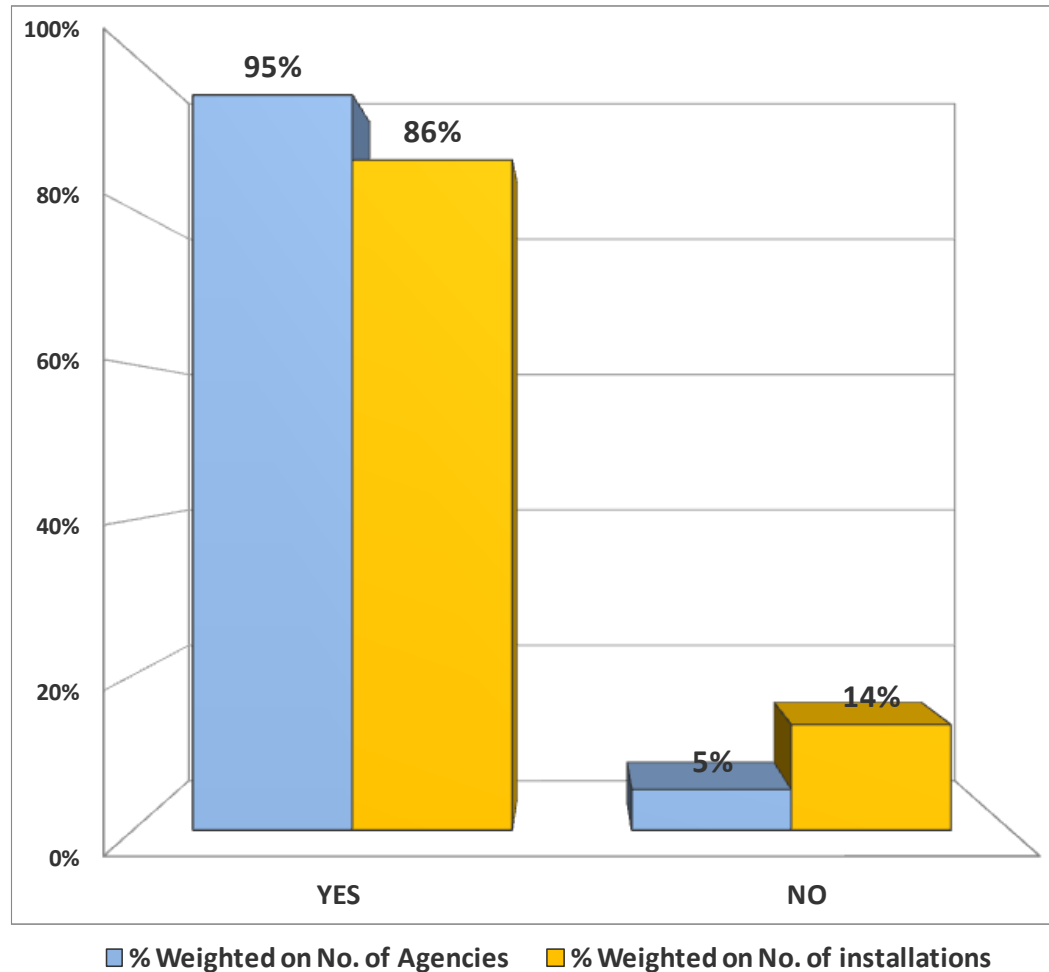
**11.1** *Changes/integrations of the Monitoring and Control Plan (if deemed necessary), also following evaluation of the data produced by the operator, are proposed*

95% of the Agencies, which represent 86% of EIA installations, propose changes of the MCP to the Competent Authority, when deemed necessary.



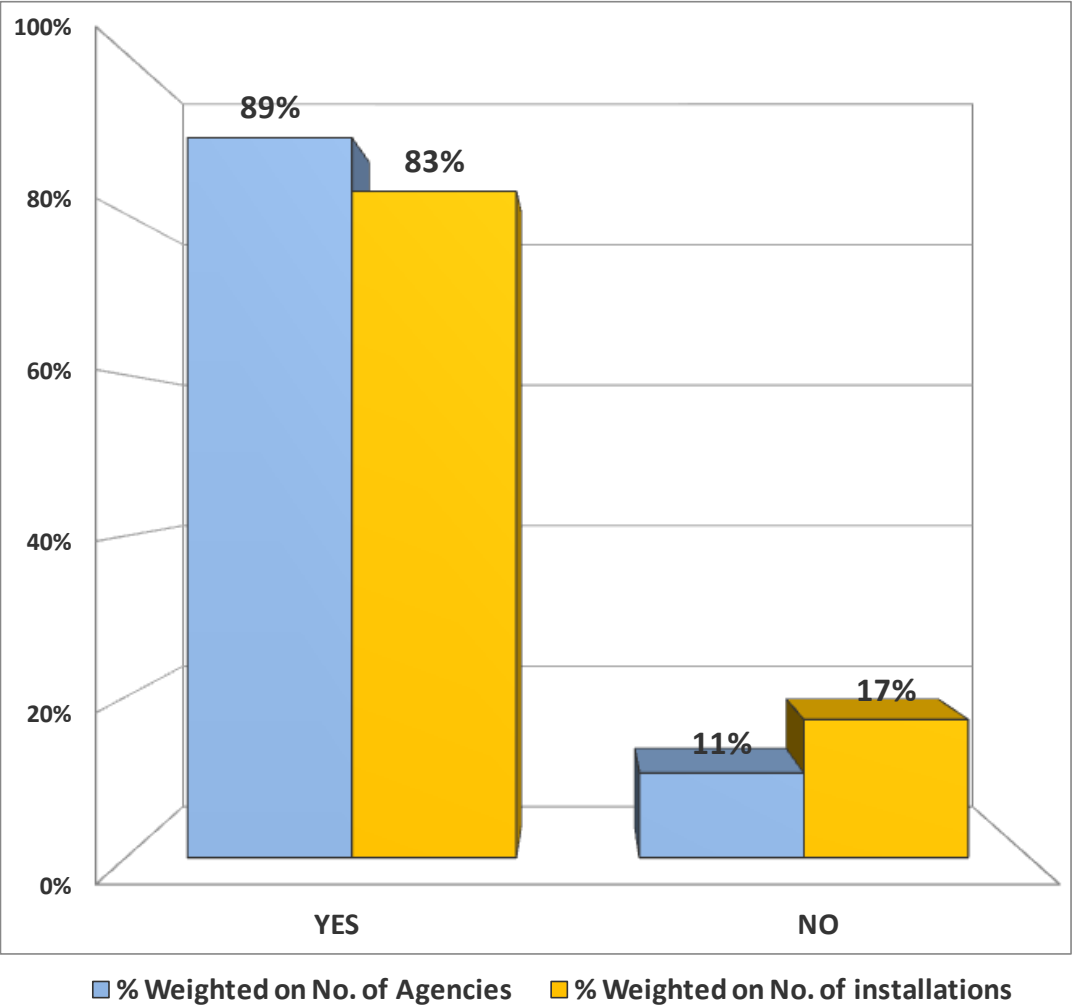
**11.2 Requests to clarify or change requirements in the authorization, not only regarding monitoring, hardly verifiable by the Agency, are submitted to the Competent Authority**

95% of the Agencies, which represent 86% of EIA installations, propose to change requirements of the authorization, difficult to verify by ARPA, to the Competent Authority.



**11.3 Requests to include new requirements in the authorization, not only related to the Monitoring and Control Plan, are submitted to the Competent Authority**

89% of the Agencies, which represent 83% of EIA installations, propose to include new requirements, not only related to the MCP, to the Competent Authority.

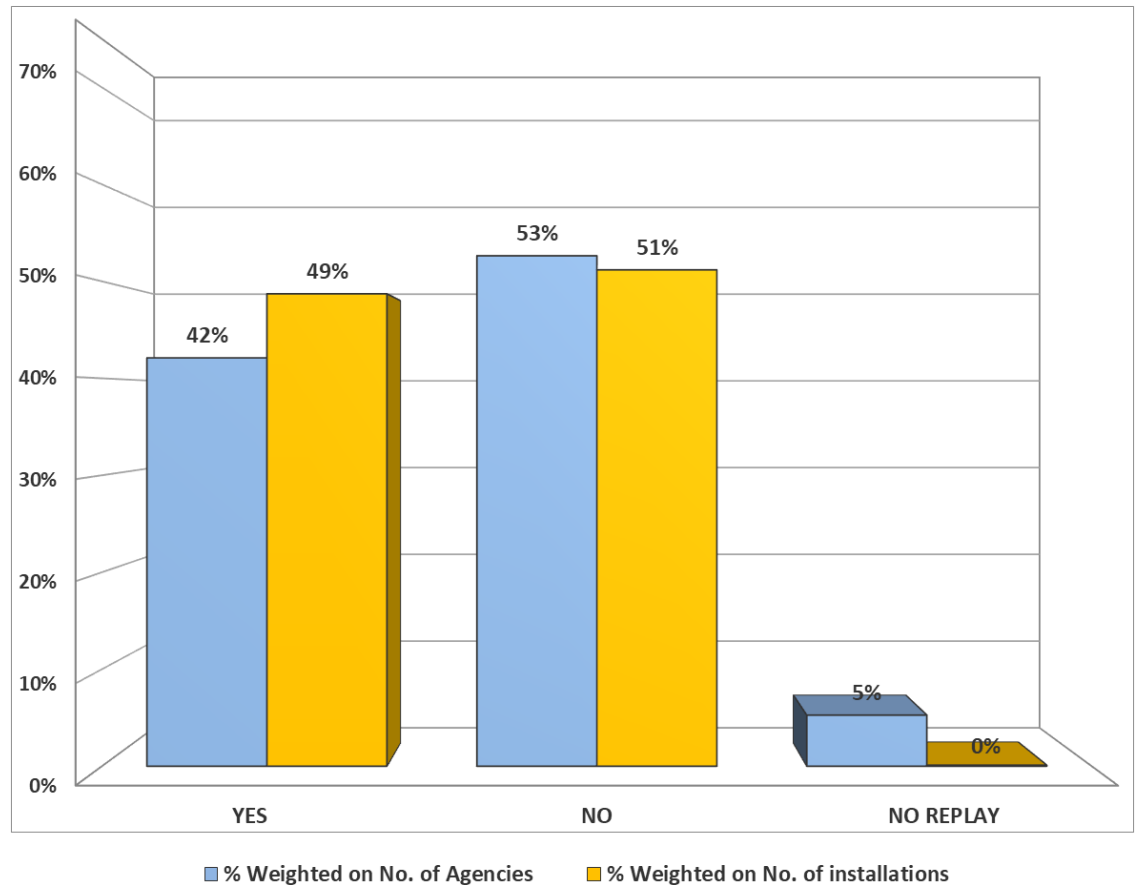


## 12. Baseline report



**12.1** *There is a regional provision that indicates for regional authorization, the timing for submission of the pre-report \* and the baseline report*

In the chart it is obvious that over 40% of the Regions gave indications on the timing for submission of the relevant pre-report and the subsequent baseline report.

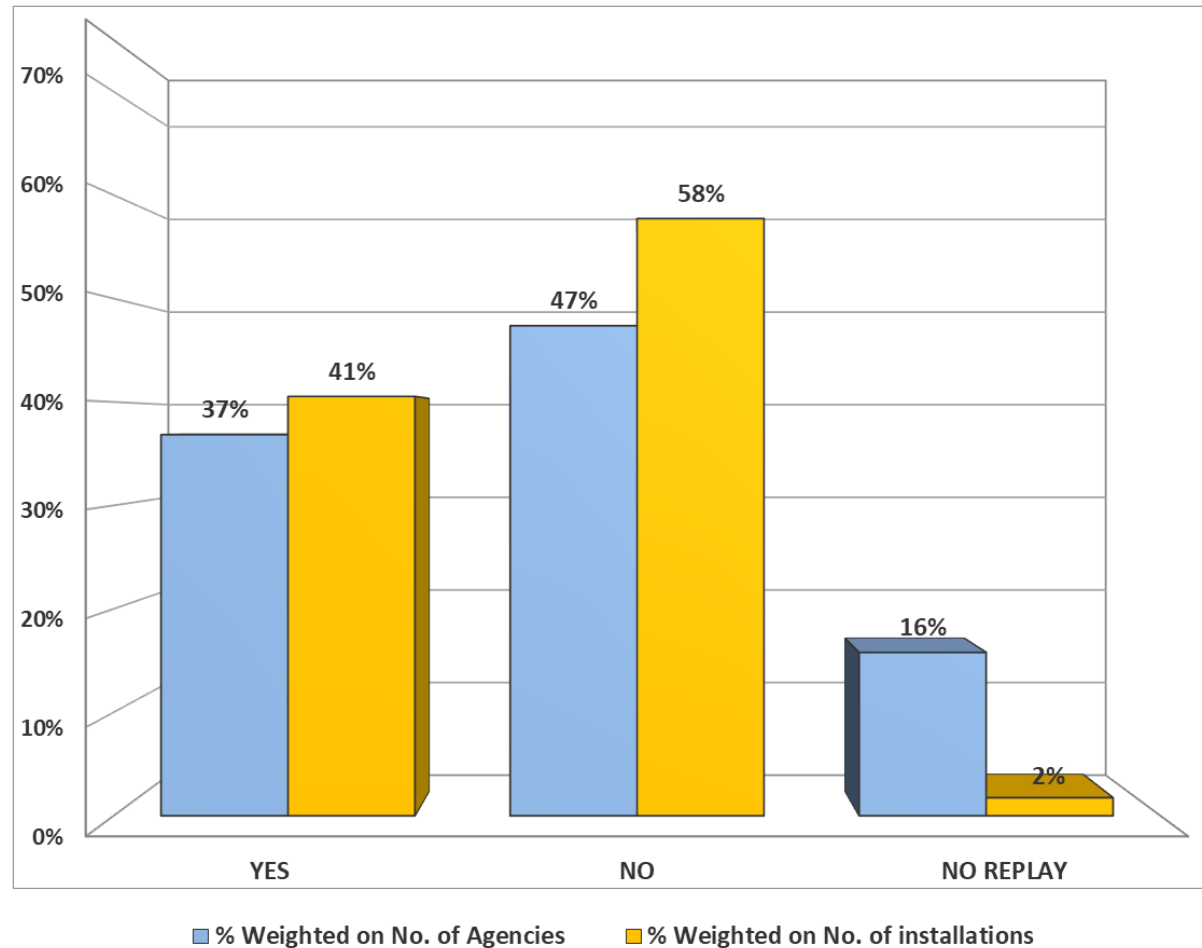


\* "Pre-report" means the " verification of the need of compulsory submission of the baseline report"

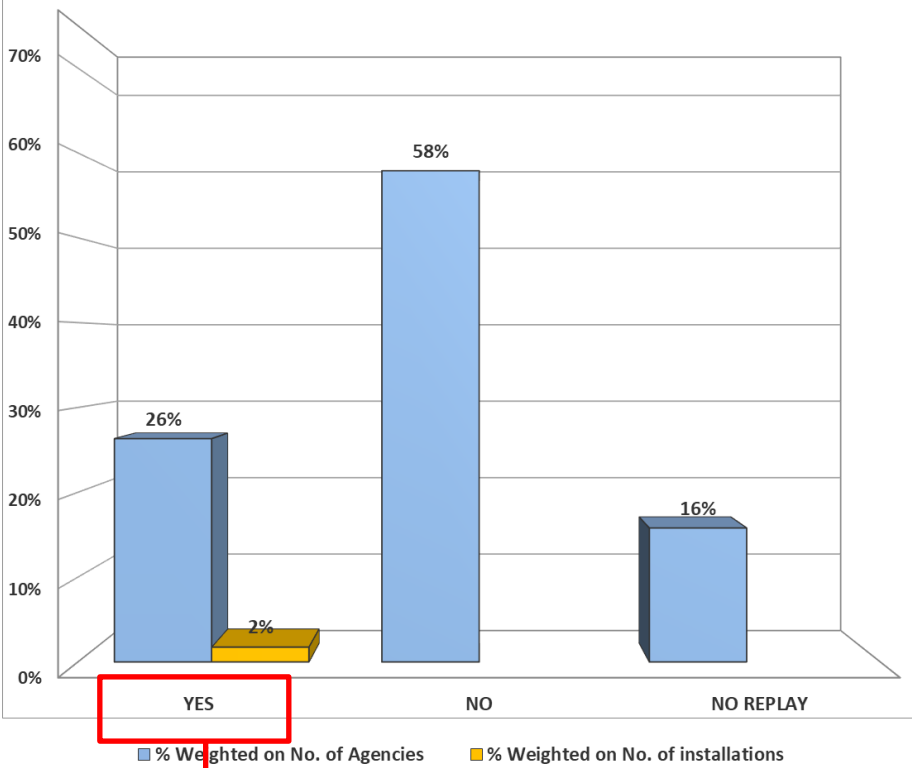
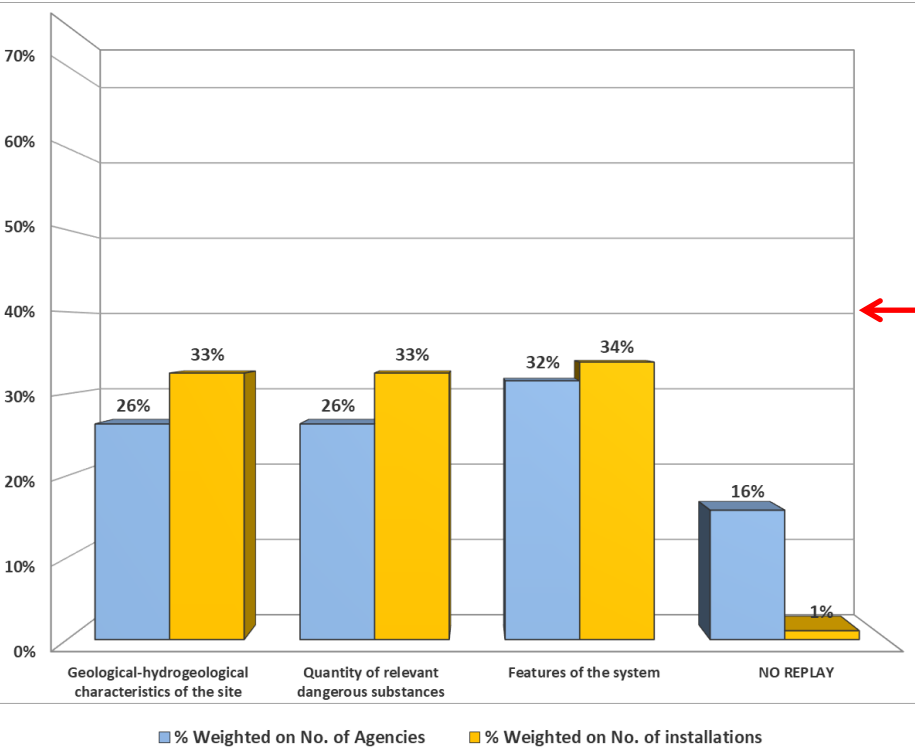
**12.2** *Regarding the baseline pre-report, the Agency shall provide a technical advice by issuing any requests for additions*

Dal grafico si vince che il 47% delle Agenzie che controlla il 58% delle installazioni AIA non esprime parere in merito alla pre-relazione di riferimento.

The chart shows that 47% of the Agencies, which represent 58% of EIA installations, expresses no opinion on the baseline pre-report.



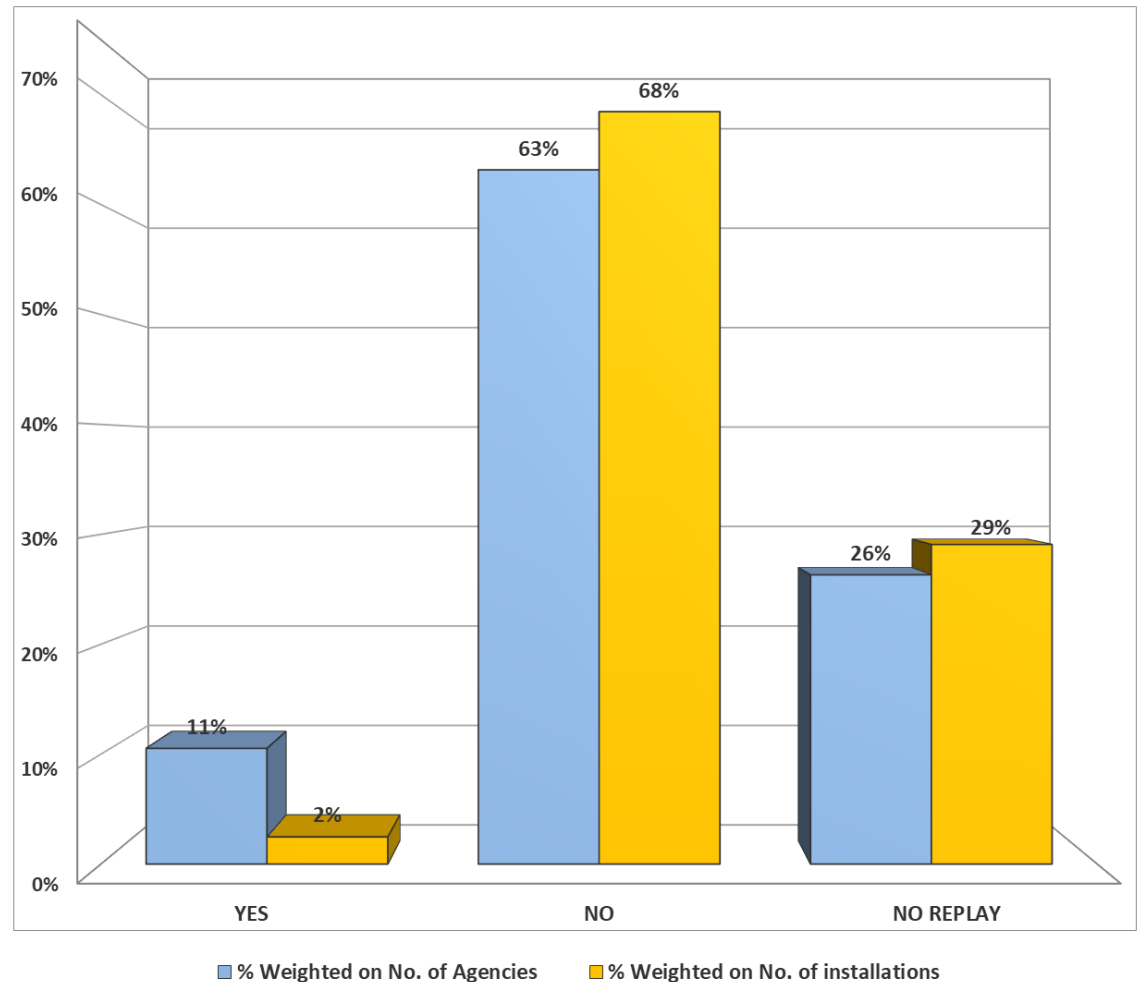
**12.3** *As part of the routine inspections, verification of the content of baseline pre-report is carried out in case of positive answer, what is verified*



The chart shows that 58% of the Agencies, as part of the routine audits do not plan to verify the contents of the baseline pre- report. The Agencies that provide that verification, which corresponds to 53% of the EIA installations, control all the technical and environmental aspects.

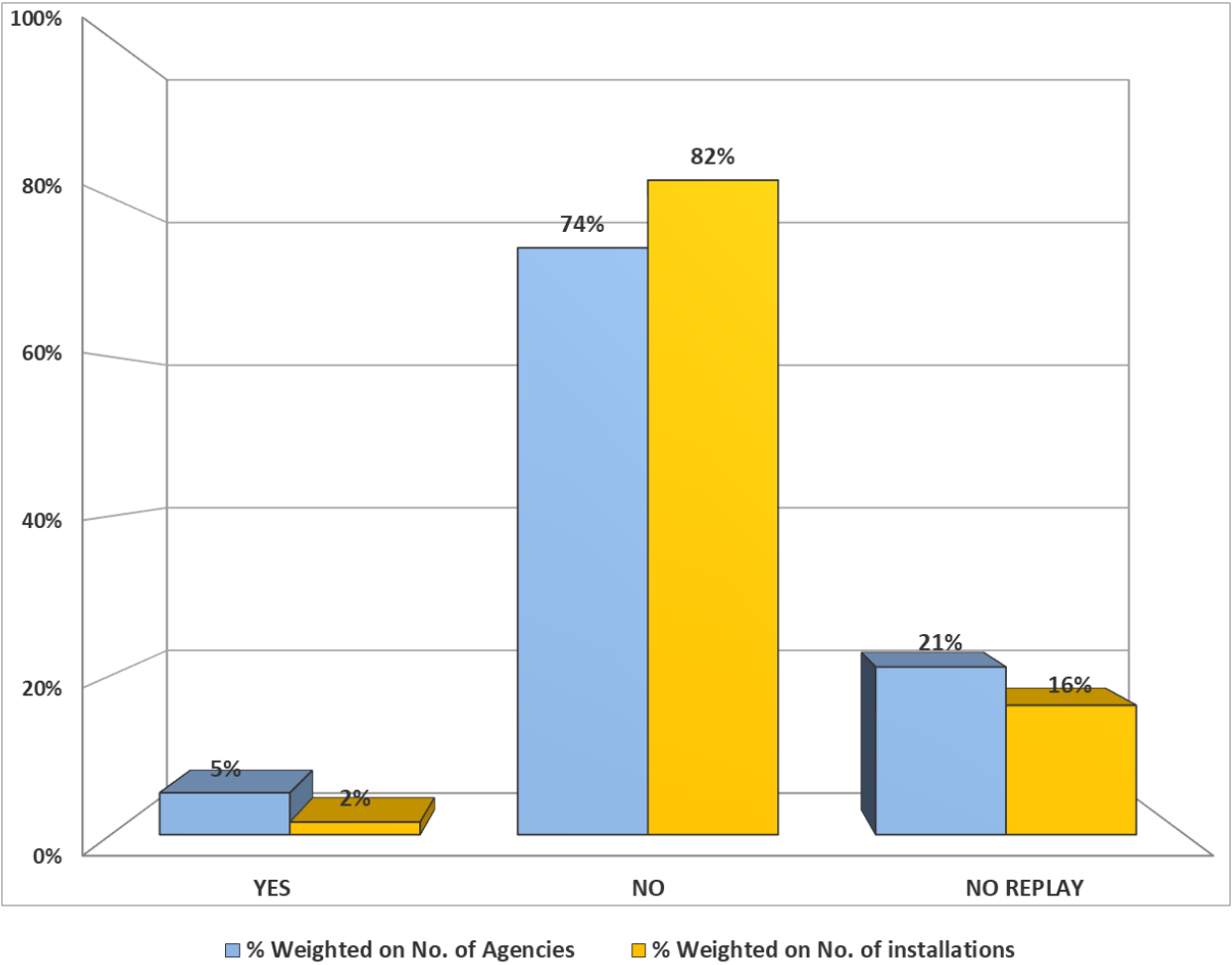
**12.4** *As a result of evaluations on the baseline pre-report some modification are normally made to groundwater and soil monitoring frequency*

It is clear that following the submission of the baseline pre-report, modification of the authorized MCP have not been made.



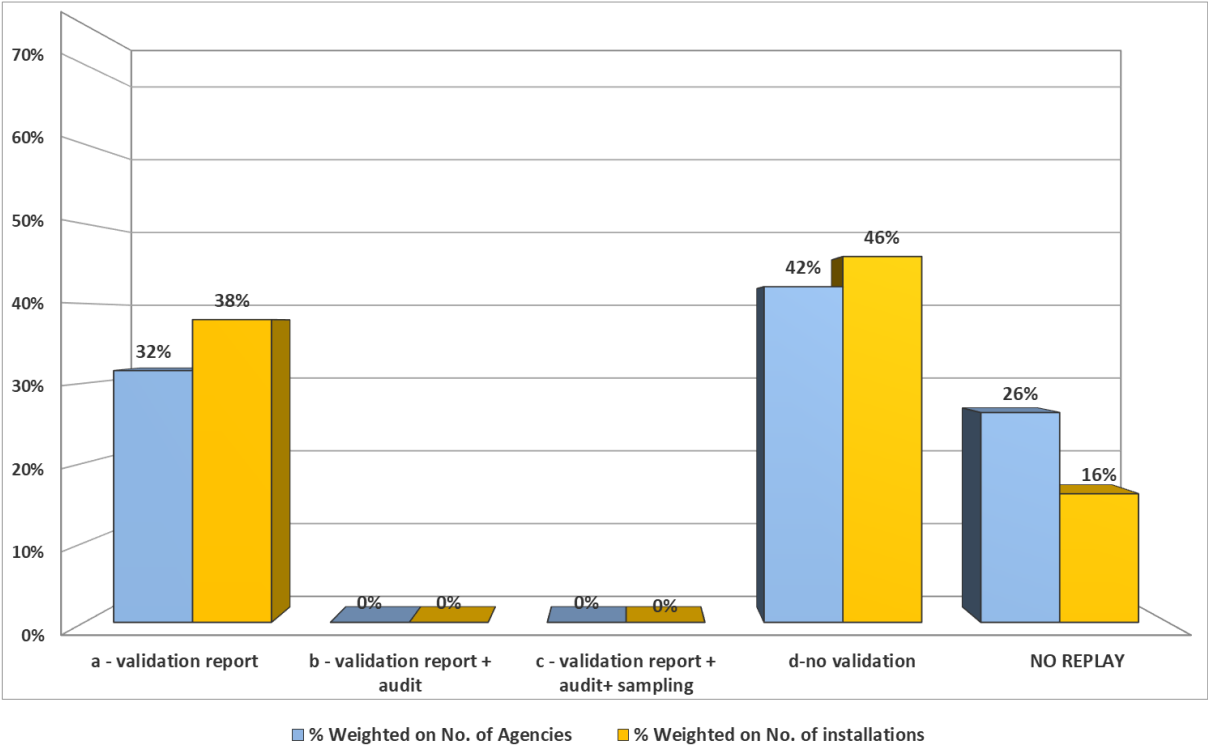
**12.5** *For the preparation of the baseline report the operator normally agrees the plan of characterization and the parameters to search with ARPA*

The graph clearly shows the lack of involvement of the audit team in the preparation of Reference Report.



**12.6** *How it is validated the baseline Report*

The graph shows a sharply opposite behavior, if the document is valid they proceed with an official validation, otherwise they do not express an opinion.



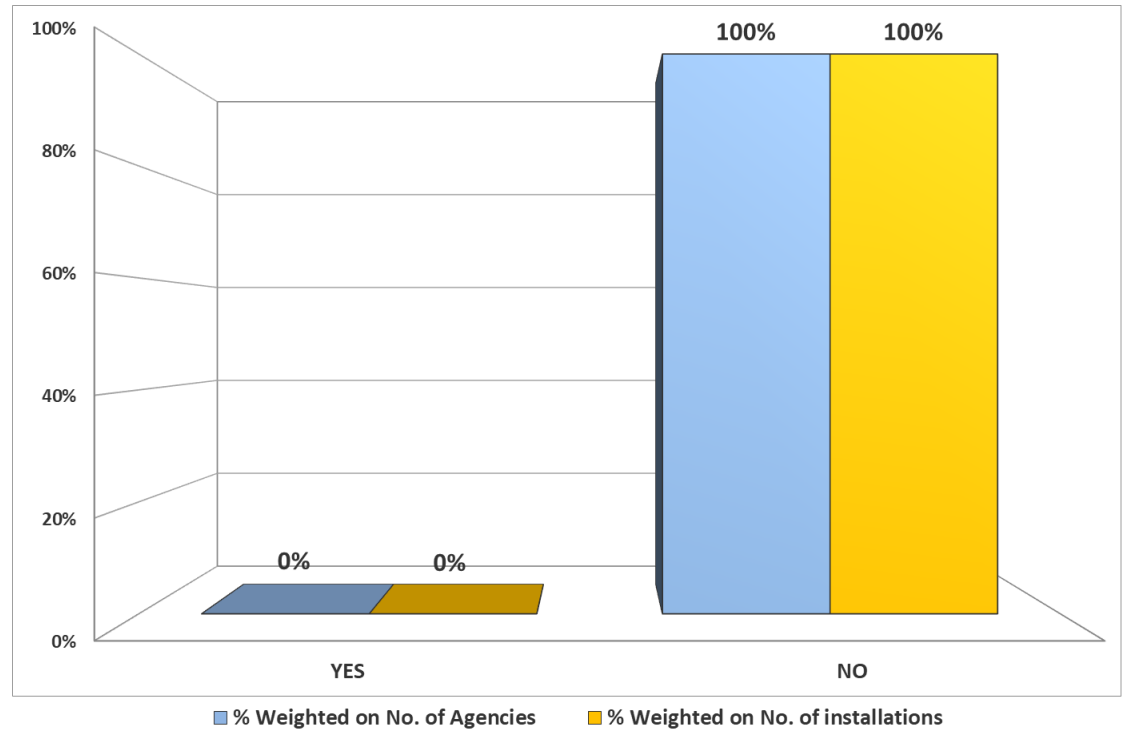
# 13. Emission Trading

(CO<sub>2</sub> and climate change)

### 13.1 Verifications are conducted during IED inspections

The relevant legislation on emissions trading does not provide for the participation of the ARPA Agencies in the activity of verification, which is entrusted to accredited verifiers.

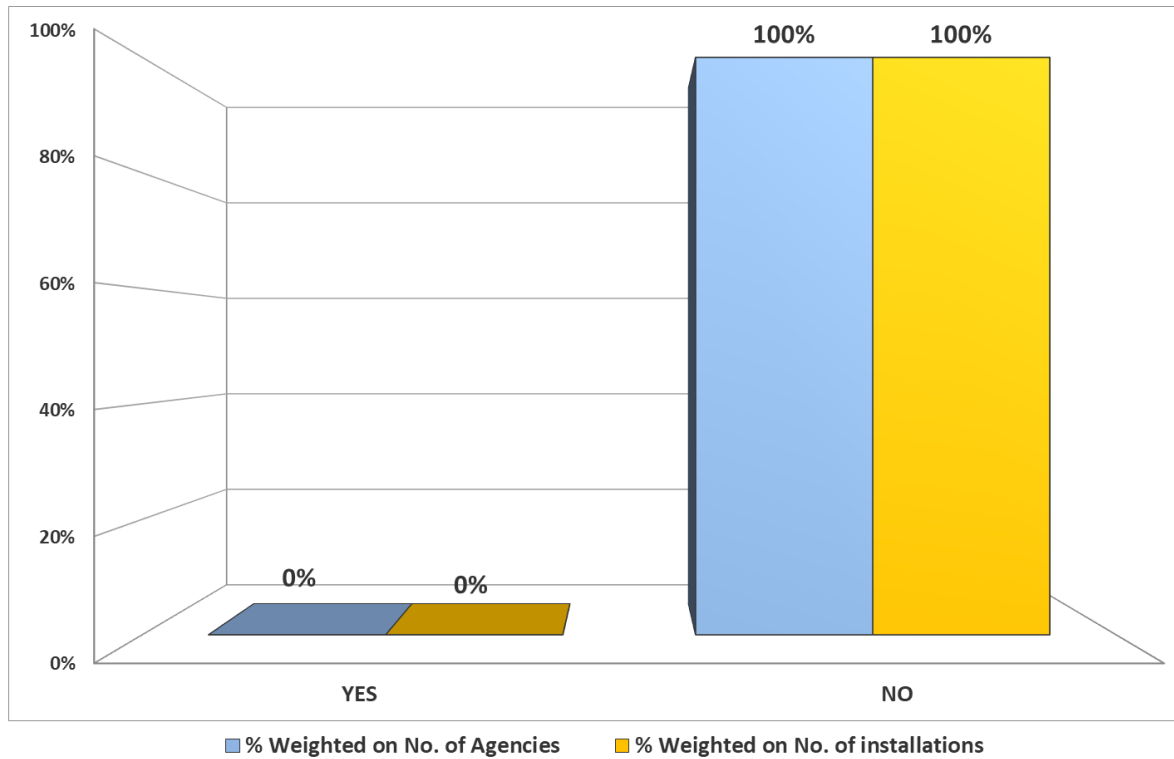
No agency during the EIA audits verify the compliance of the operator to Emission Trading legislation.





### 13.2 *Indicate other assessments that are carried out*

No agency claims to make further assessments on that aspect.

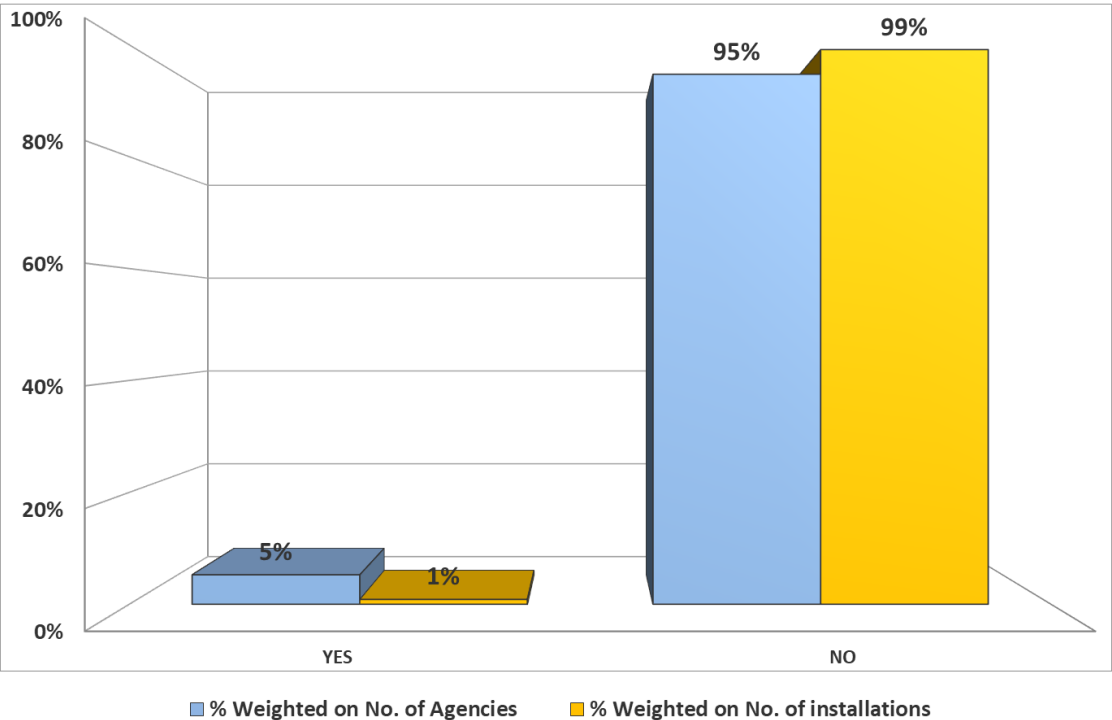


## 14. Companies with a major accident risk (Seveso Directive)

**14.1** *Inspections are performed by the same team that performs IED inspections*

Almost all Agencies do not involve the same staff for the EIA audits and for the audits related to major accidents (MAR).

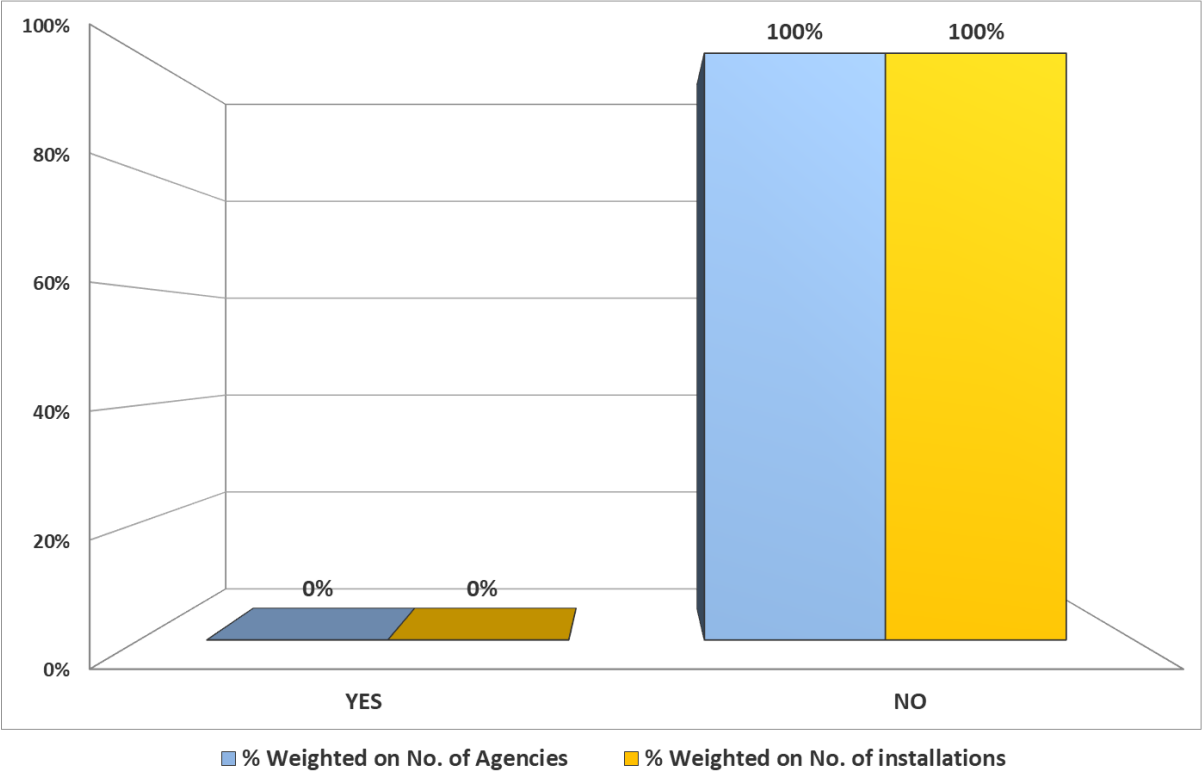
The exception is only one agency which corresponds to a workload of EIA-MAR installations of regional competence of 1% of the total of such installations nationwide



**14.2** *The execution of a unique joint IED-Seveso inspection is preferred*

Both the Legislative Decree no. 152/06 art. 29-sexies, section 6-ter and the Legislative Decree no. 105/15 art. 27, paragraph 10 provide for the possibility to perform co-ordinated joint audit activities for integrated environmental authorization and for major accidents.

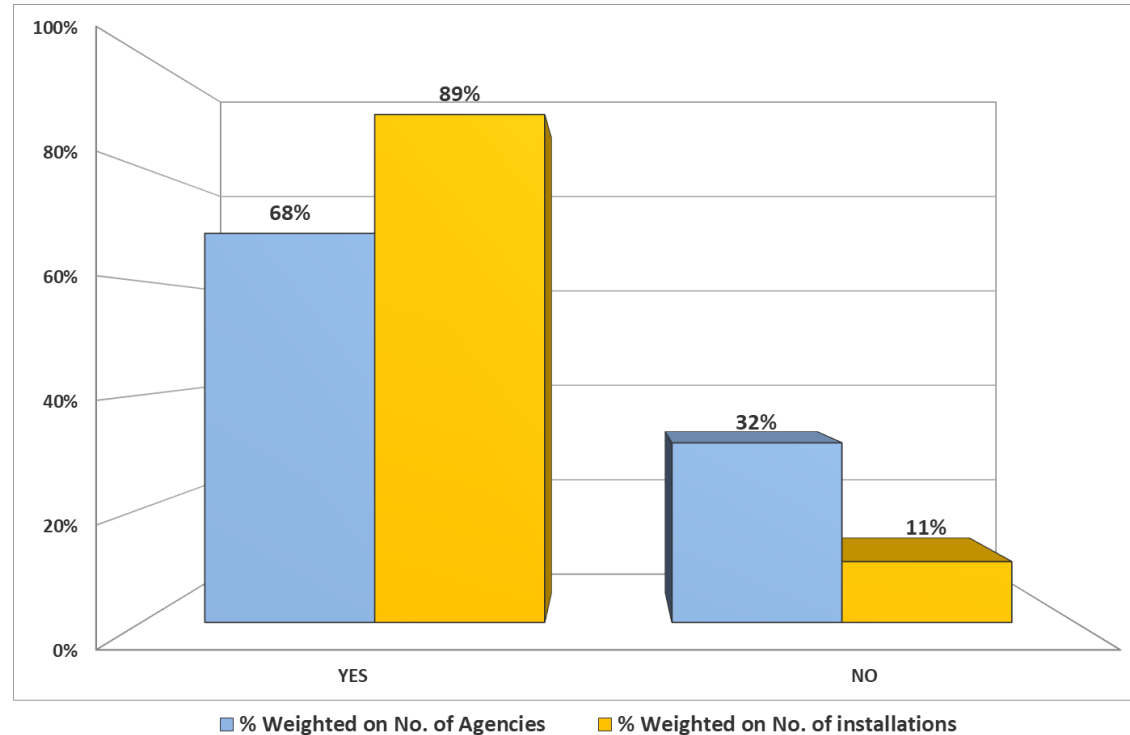
The execution of a unique joint audit is not applied by any Agency.



### 14.3 A specialized group is dedicated to Seveso inspections

The audit in the MAR installations are carried out by an audit committee composed of a set of executives or official technician trained and members of the CNVVF, all'INAL and ARPA (points 3 and 7.2 of Annex H to Legislative Decree . 105/15).

In most Agencies, there is trained personnel that meets the requirements of the legislation in order to be appointed in the audit team.

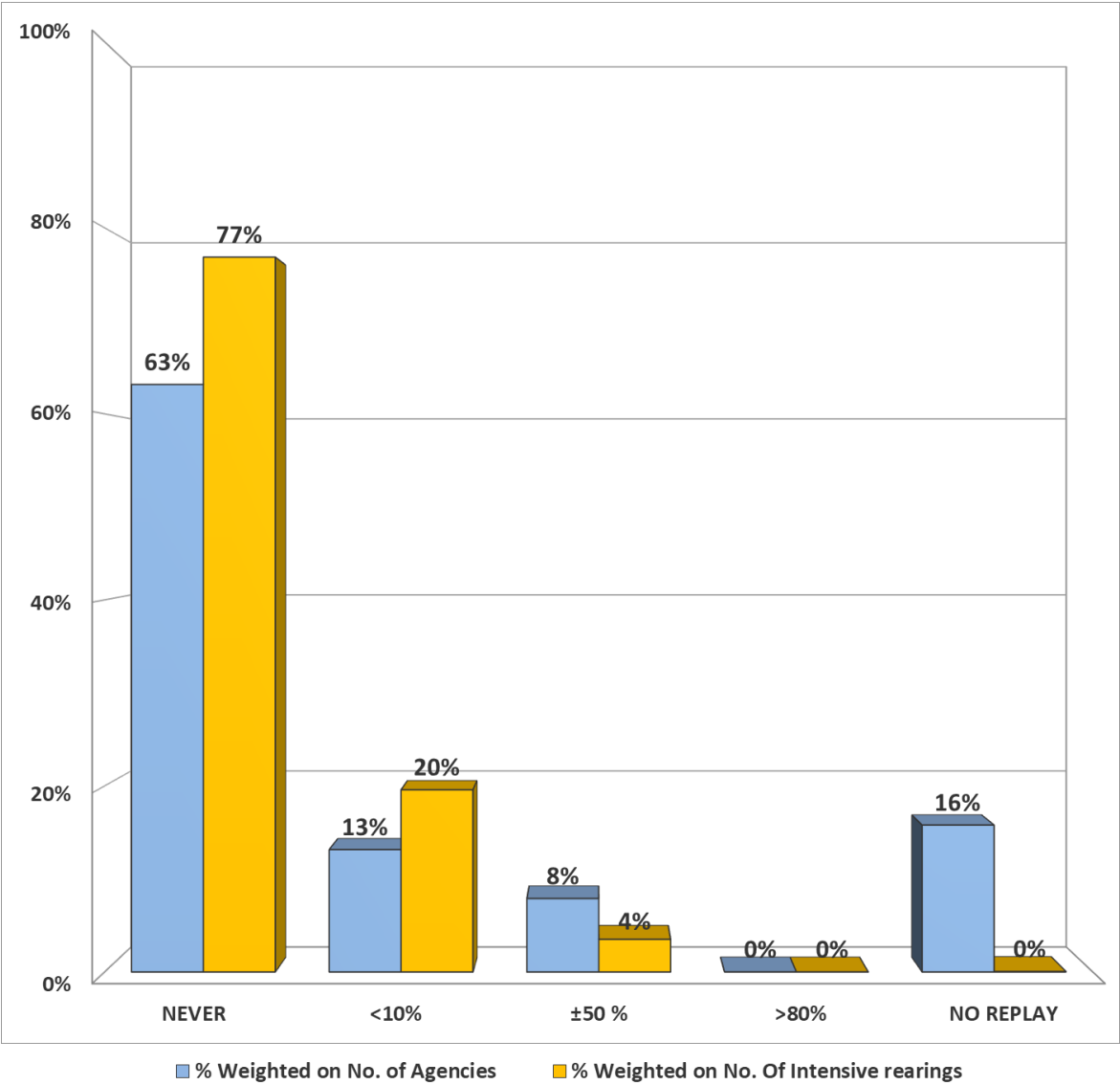


15. Livestock enterprises - IPPC  
activities referred to in point 6.6.

Annex 8

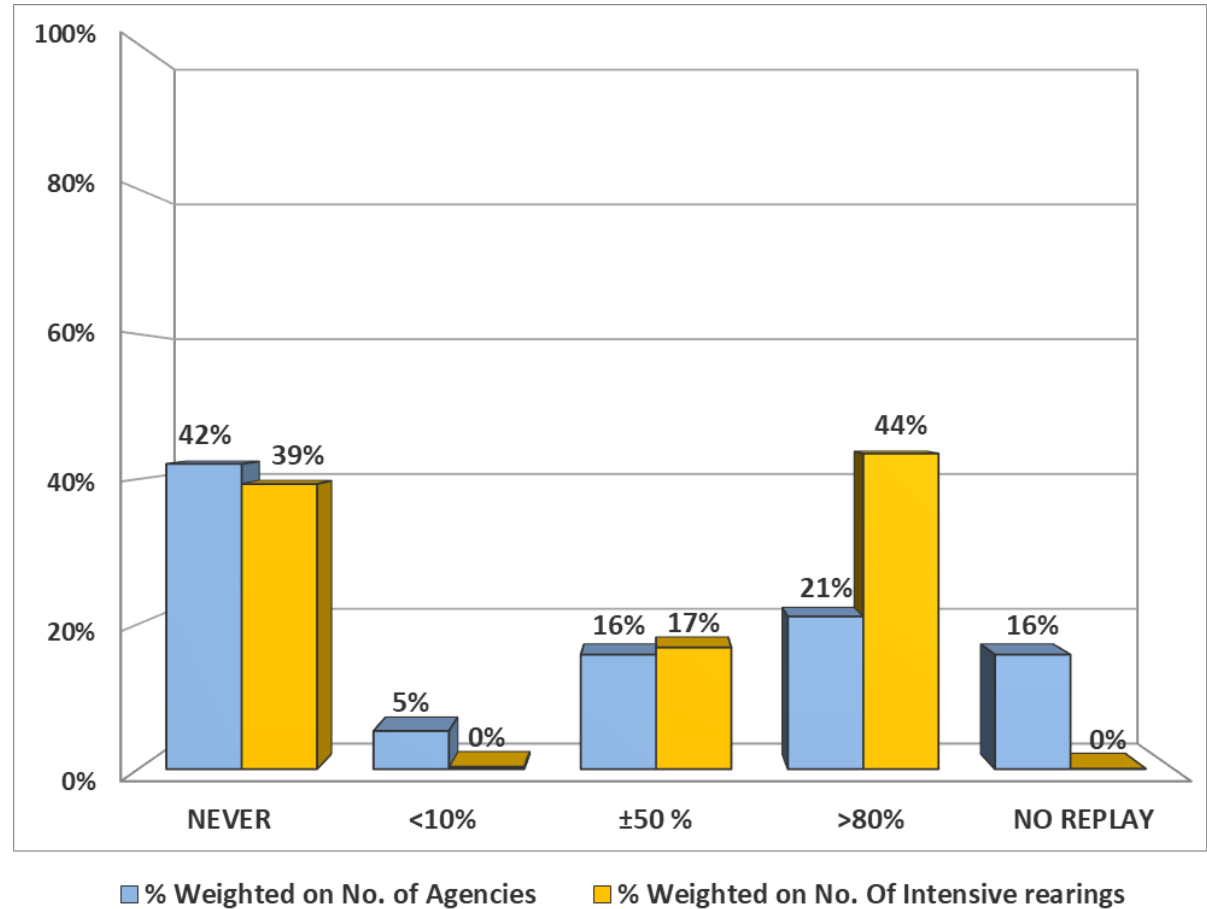
**15.1** *The Agency carries out soil samples in landspreading areas defined by the of Agronomic Utilization Plan (PUA)*

The main behavior of Agencies is quite consistent in stating that you do not make, if not rarely, soil sampling in spreading areas defined by the PUA.



**15.2** *The suitability of the PUA with respect to the load of nitrogen produced by the livestock farming and the correspondence between the planned and the practiced crops is verified.*

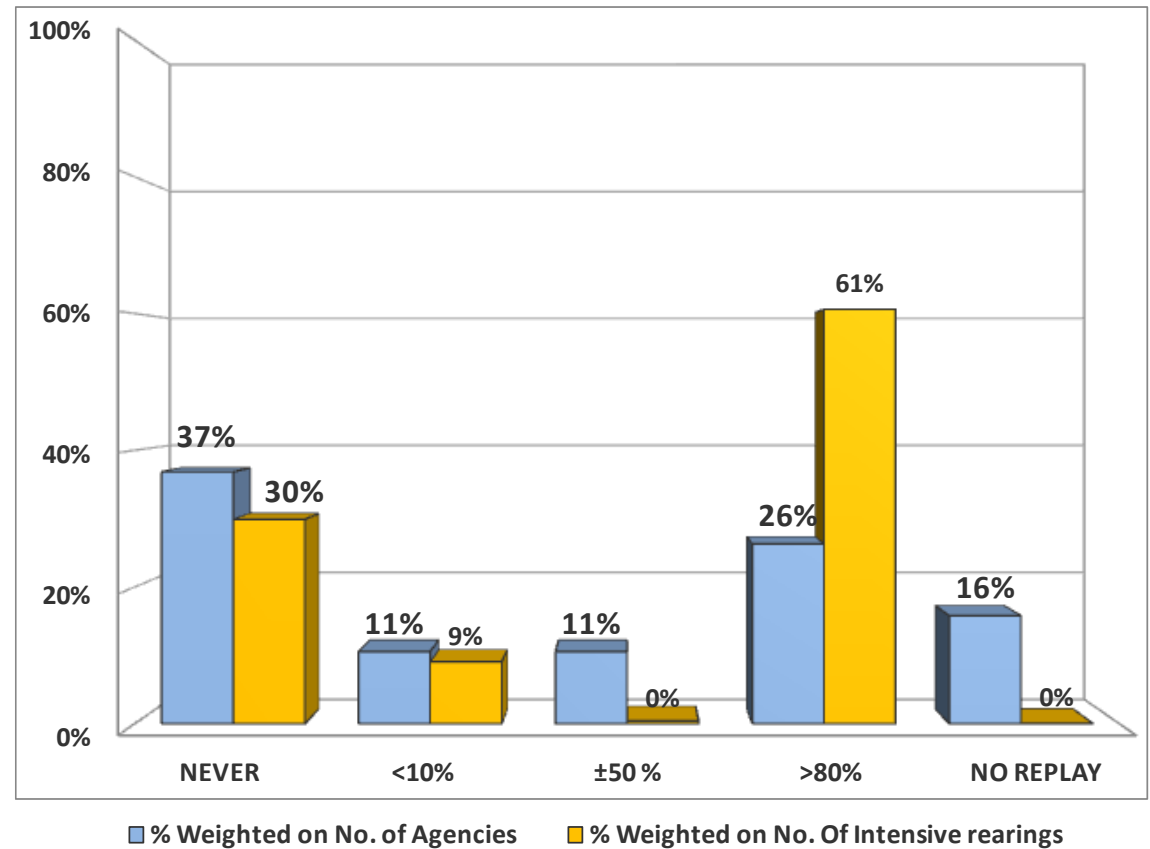
The graph shows that 42% of the Agencies which corresponds to 39% of the EIA sample of category 6.6 never verifies the suitability of PUA respect to the loads of nitrogen and the practiced crops, while 21% of the Agencies makes such verification covering 44% of the EIA sample of category 6.6.





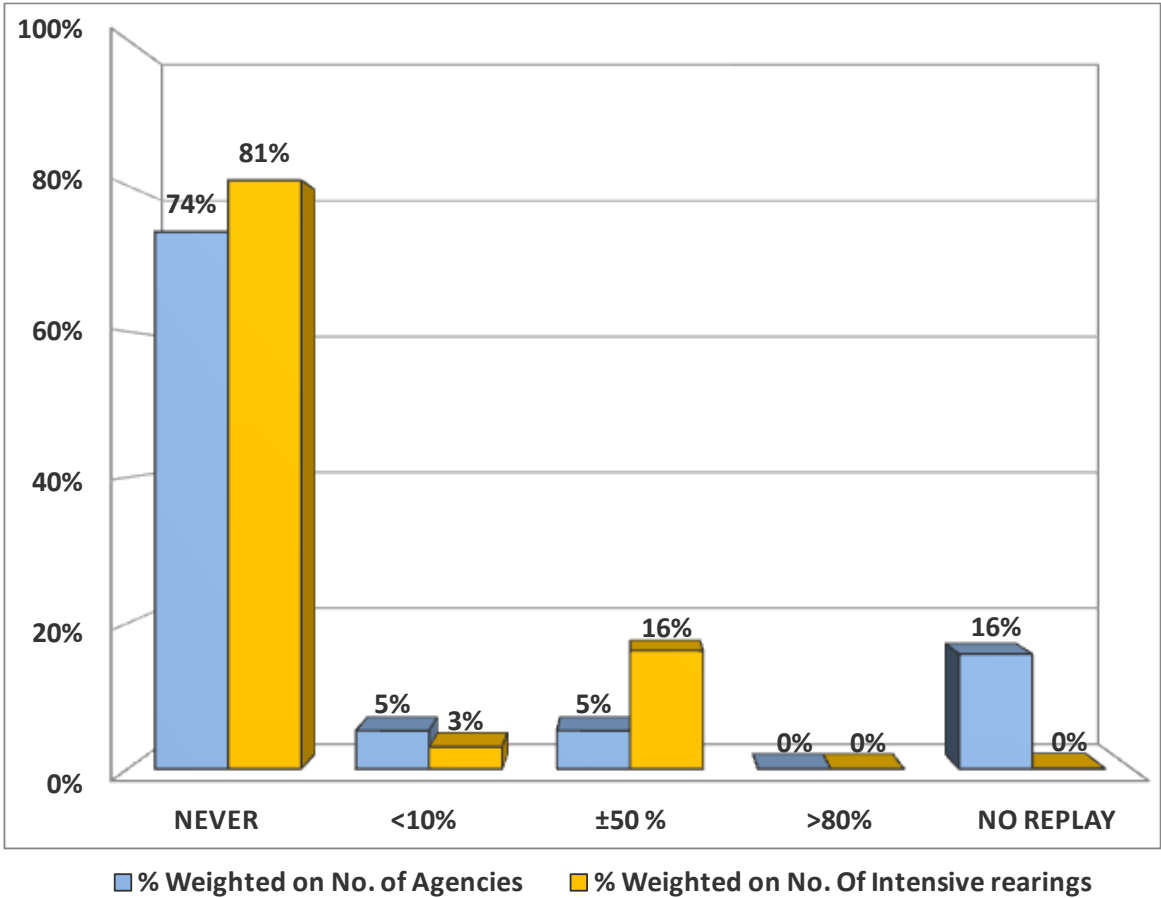
**15.3 Fugitive emissions resulting from the activities of ammonia and methane releases from storage of slurry / slurry landspreading are estimated**

From the graph it can be clearly seen that 61% of EIA sample of cathegory 6.6 it is subject to these verifications.



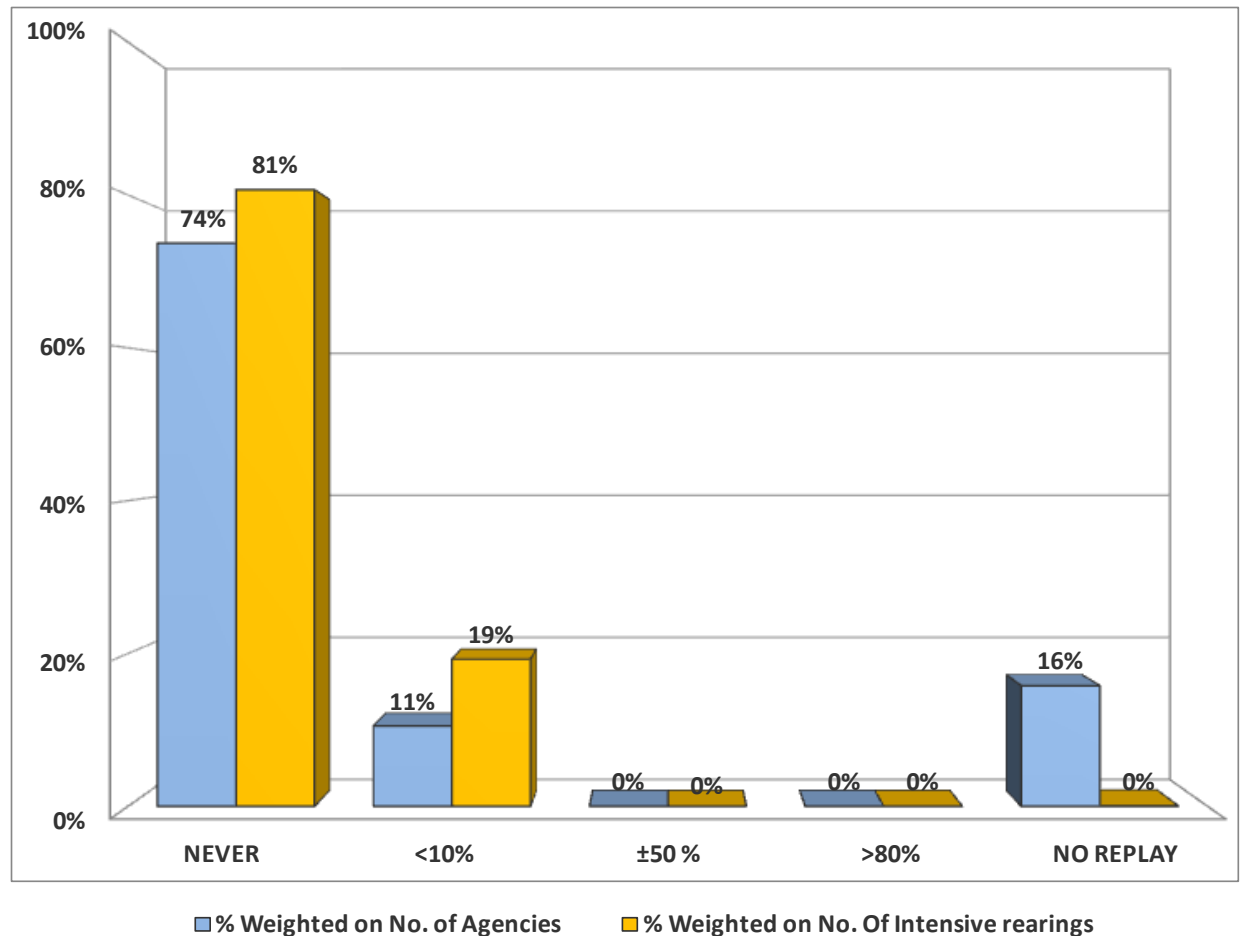
**15.4** *Samples of chicken manure for the verification of the correct functioning of drying systems are collected*

The graph shows that 74% of the Agencies, which corresponds to 81% of the EIA sample category 6.6, does not carry out such verifications.



**15.5** *are collected Slurry samples for the assessment of the SV/ST ratio to verify the correct operation of the vacuum system?*

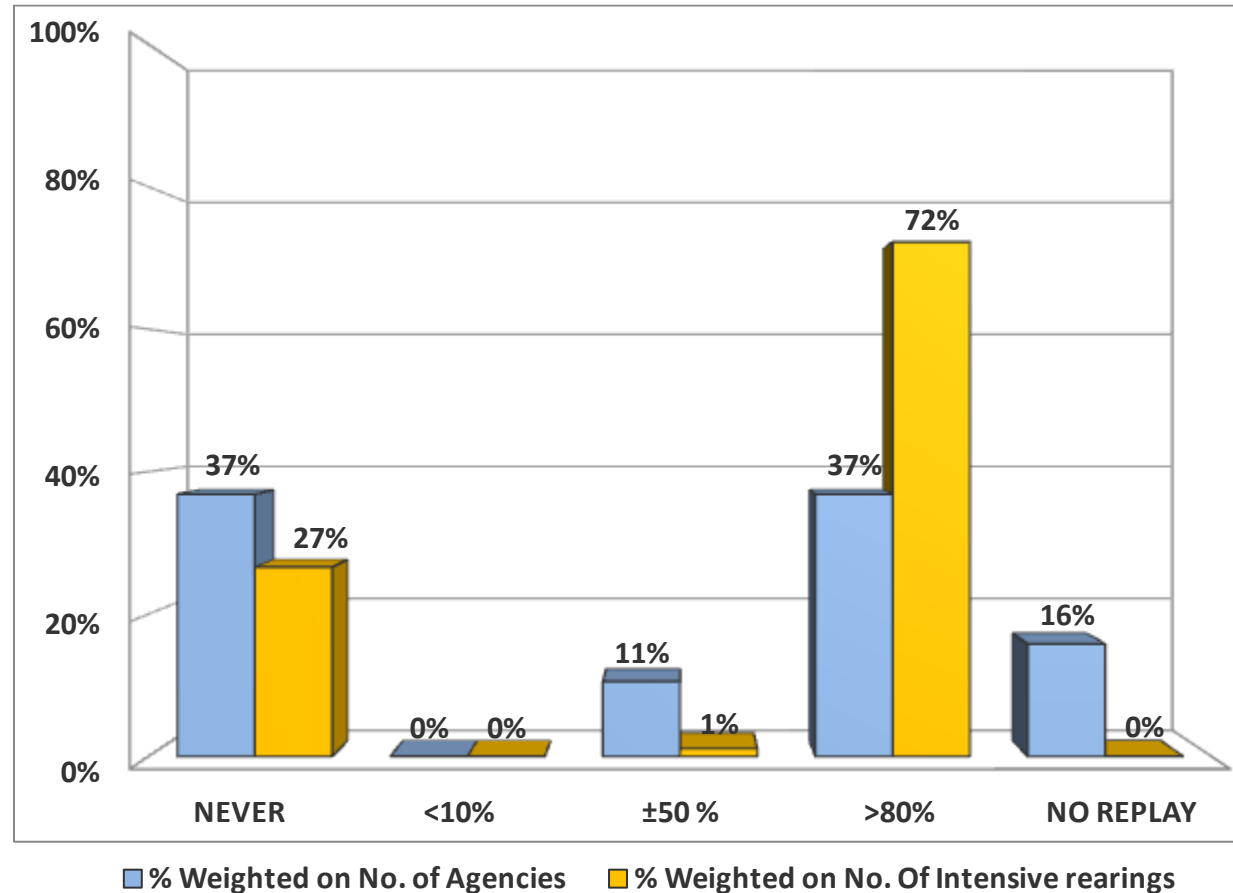
The graph shows that 74% of the Agencies, that corresponds to 81% of the EIA sample category 6.6, does not carry out such samples.



**15.6** *Checks are made on tanks of shovellable effluent storage, non shovellable and under grid*

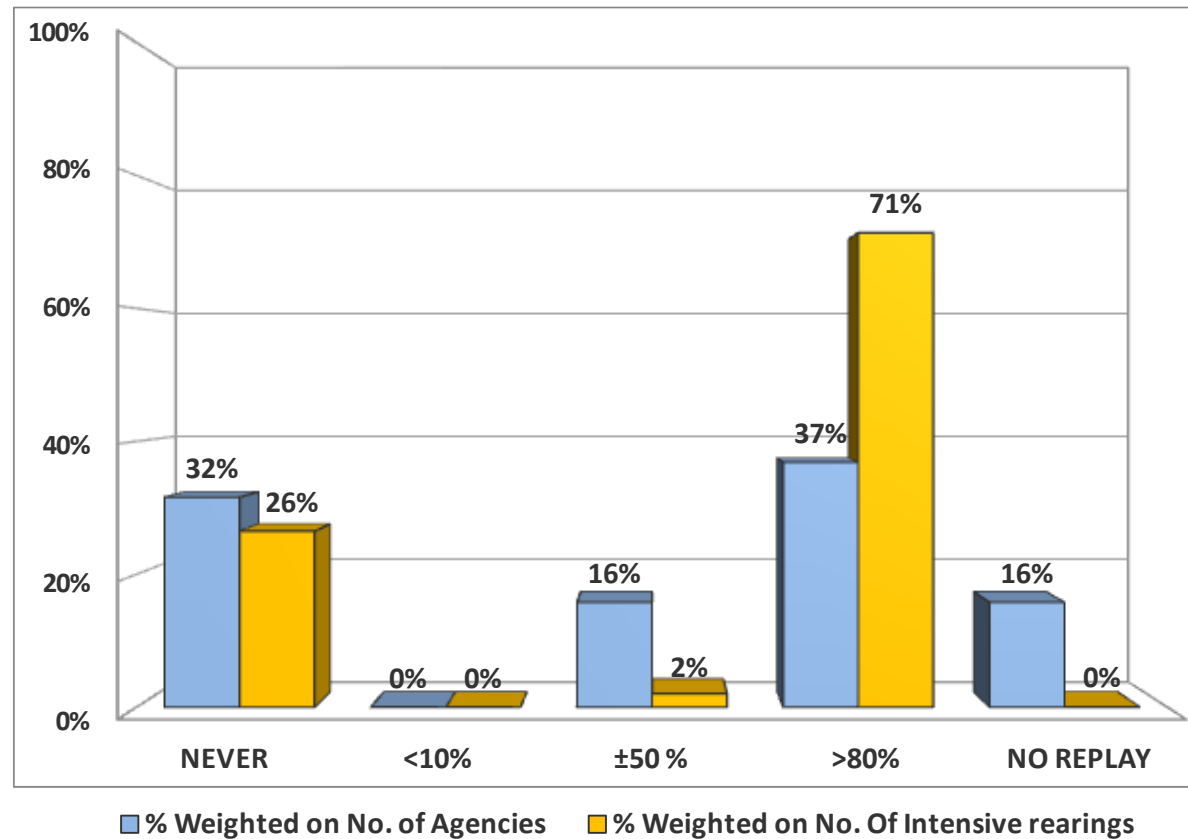
The graph shows that despite the dissimilar behavior of the Agencies, the 72% of EIA sample cat. 6.6 is subjected to these controls.

It is clear that such activity is carried out by the Agencies in territories with the largest number of EIA livestock farming.



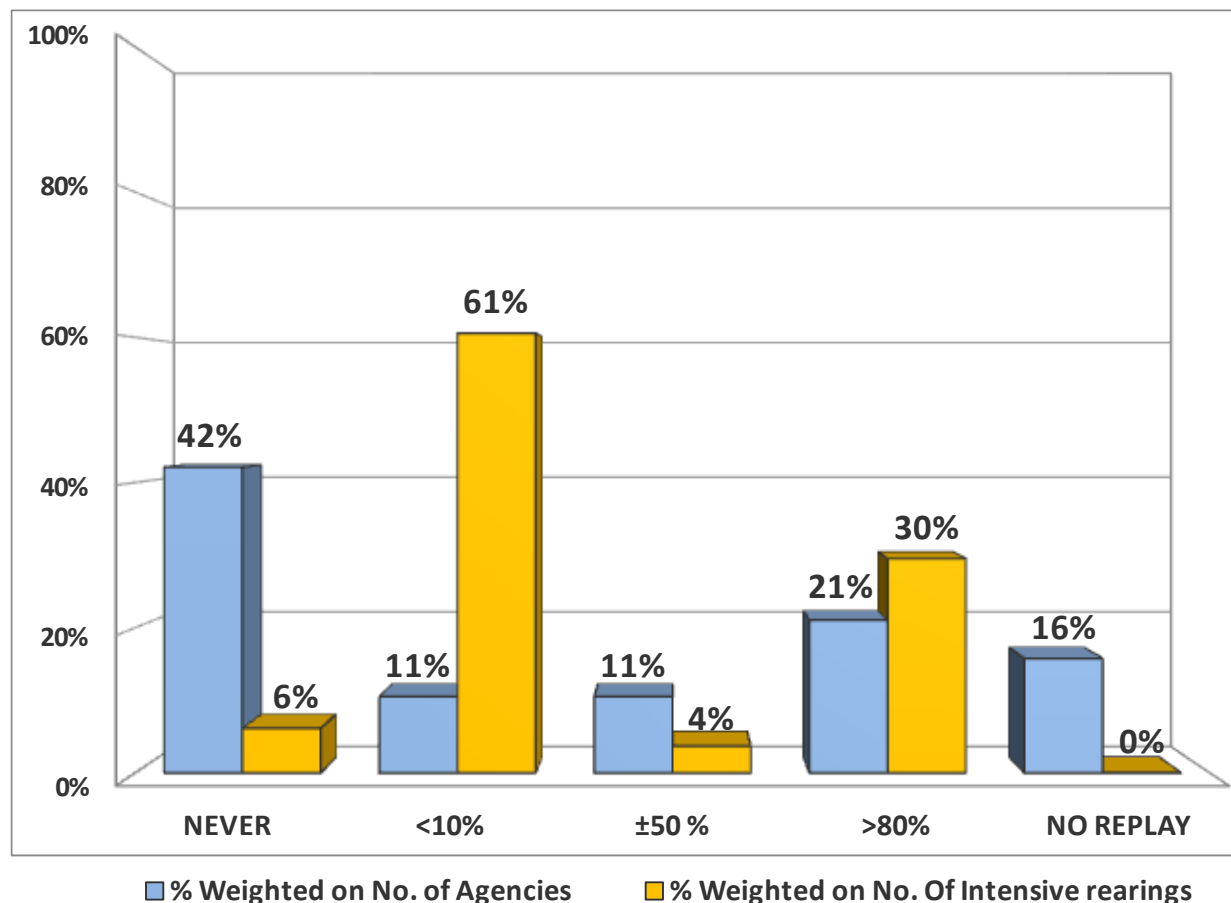
**15.7** *The consistency of the livestock farming is checked by registers verification, with respect to the consistency stated?*

The graph shows that despite a dissimilar behavior by the Agencies, 71% of the EIA sample category 6.6 is subjected to such controls. It is clear that such activity is carried out by the Agencies in whose territory is the largest number of livestock farming subject to EIA.



**15.8** *Are conducted Emission controls and/or management audit on the biogas plants from manure effluents, if present in the installation?*

As part of the planned audit and in the current authorization framework, which has not yet transposed the modifications made by Legislative Decree no. 46/2014 regarding technically connected activities, 53% of the Agencies do not perform or only rarely perform control on biogas systems where present in cat. 6.6 EIA installations.



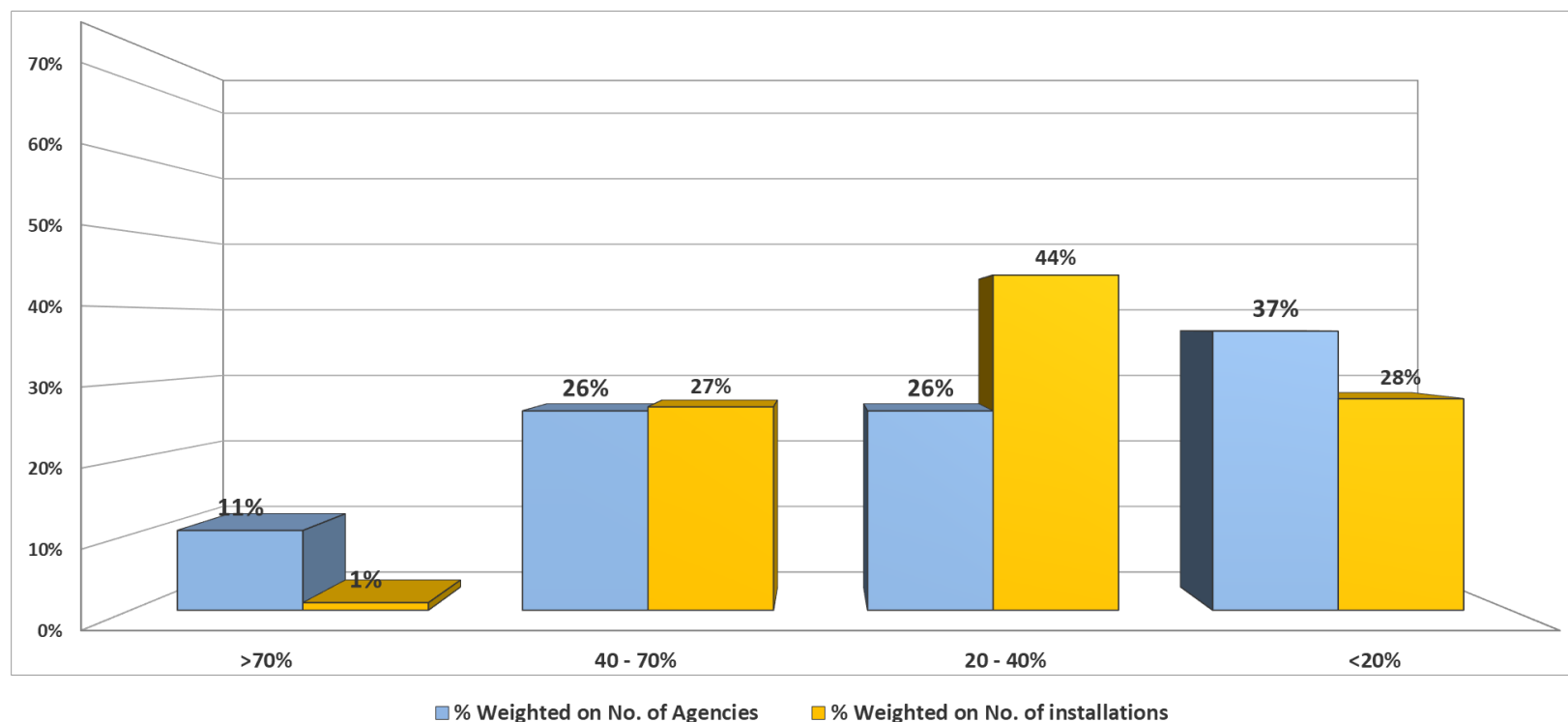
## 16. Economic impact of IPPC audits on ARPA

## 16.1 In 2014 how many ordinary inspections (see paragraphs 2.1 and 2.2) were carried out by the Agency

In the graph are reported the data received with the questionnaires that have been subsequently processed, in order to reduce the dispersion, in terms of percentage with respect to the number of EIA of the single Agency competence. So for example in the group >70% are included Agencies that have carried out a number of audits more than 70% of EIA of competence. Attention must be paid to the evaluation of these data because a small percentage of audits with respect to a very large number of EIA installations of competence, as happens in some Agencies, leads to a high number of audits carried out.

For example, in 26% of the Agencies audits have been conducted in the range of 20-40% of EIA installations of competence. From the point of view of the number of installations involved, this percentage rises to 44%.

This question was answered by all the Agencies.

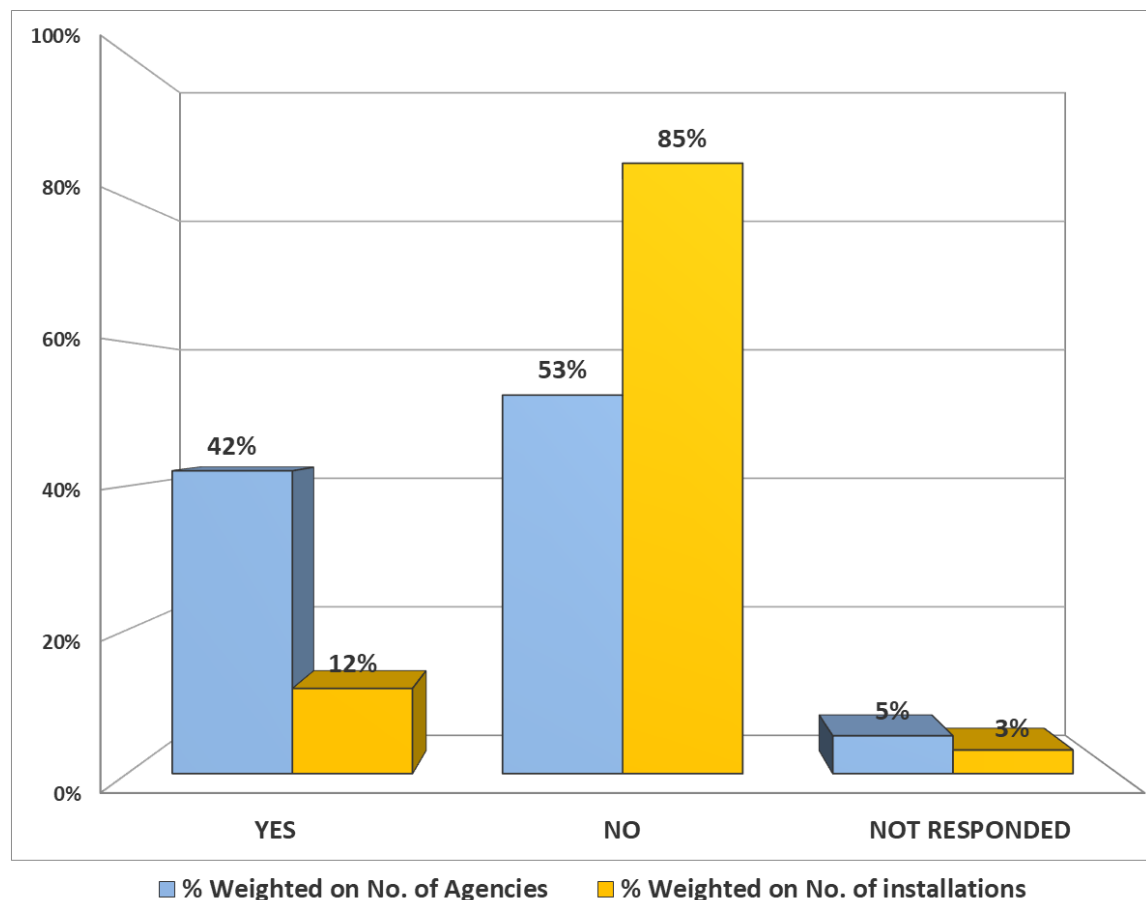




**16.4** *Even if no inspection has been performed during the year, the operator is still required to pay the fixed rate of the inspection activities*

As can be seen from the results of the questionnaire shown in the graph, in the majority of Agencies (53%) the operator is not required to pay the fixed rate “Tc” in the years in which no audit is performed. From the point of view of the number of installations involved, this percentage rises to 85%.

This situation shows that a large number of the Agencies with EIA installation of competence have considered the national legislation in the way that, if audits are not conducted, then any fee is not due from the operator. Almost all (95%) of the Agencies responded to this question.



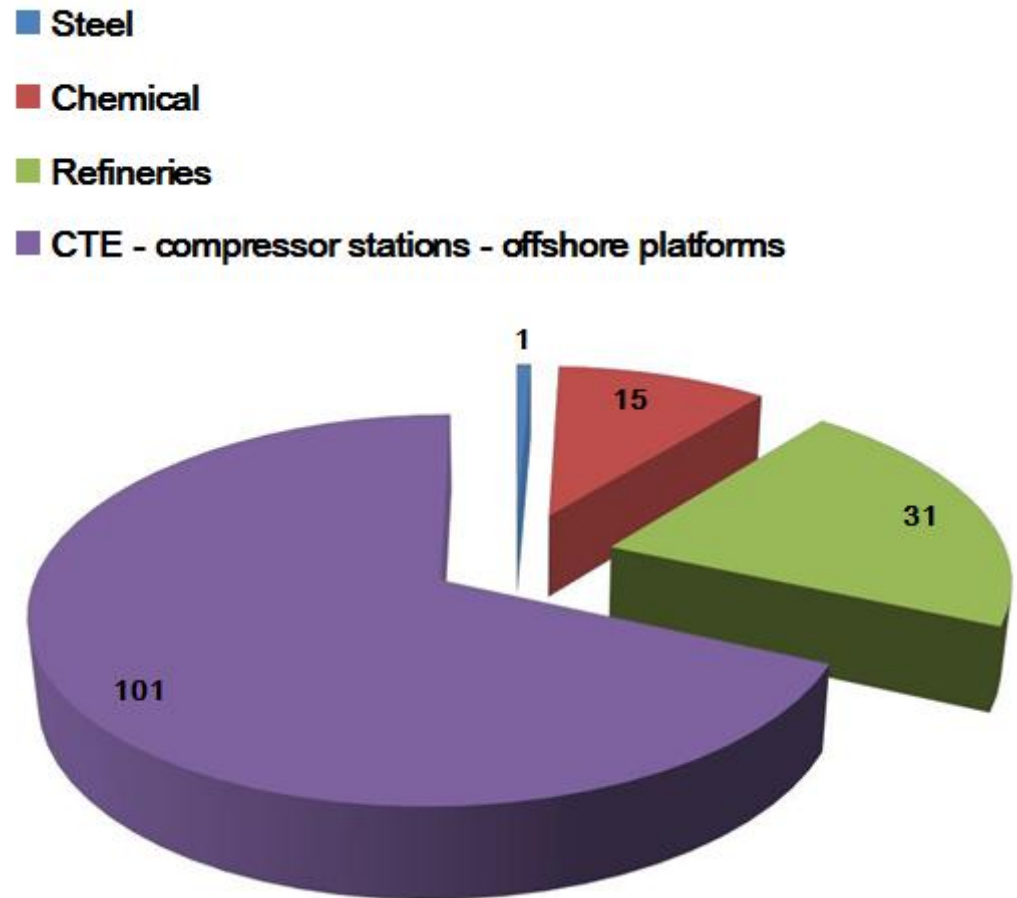
**Installations subject to EIA under  
national permit**

# Installations subject to EIA under national permit

In the graph are reported the data relating to installations subject to EIA state jurisdiction, divided into the following four types: integrated steel making plants, oil refineries, chemical plants and thermoelectric power plants (CTE). In the last type it is also included compression stations and offshore platforms.

As it can be seen, the vast majority, in numerical terms, of the installations is represented by CTE.

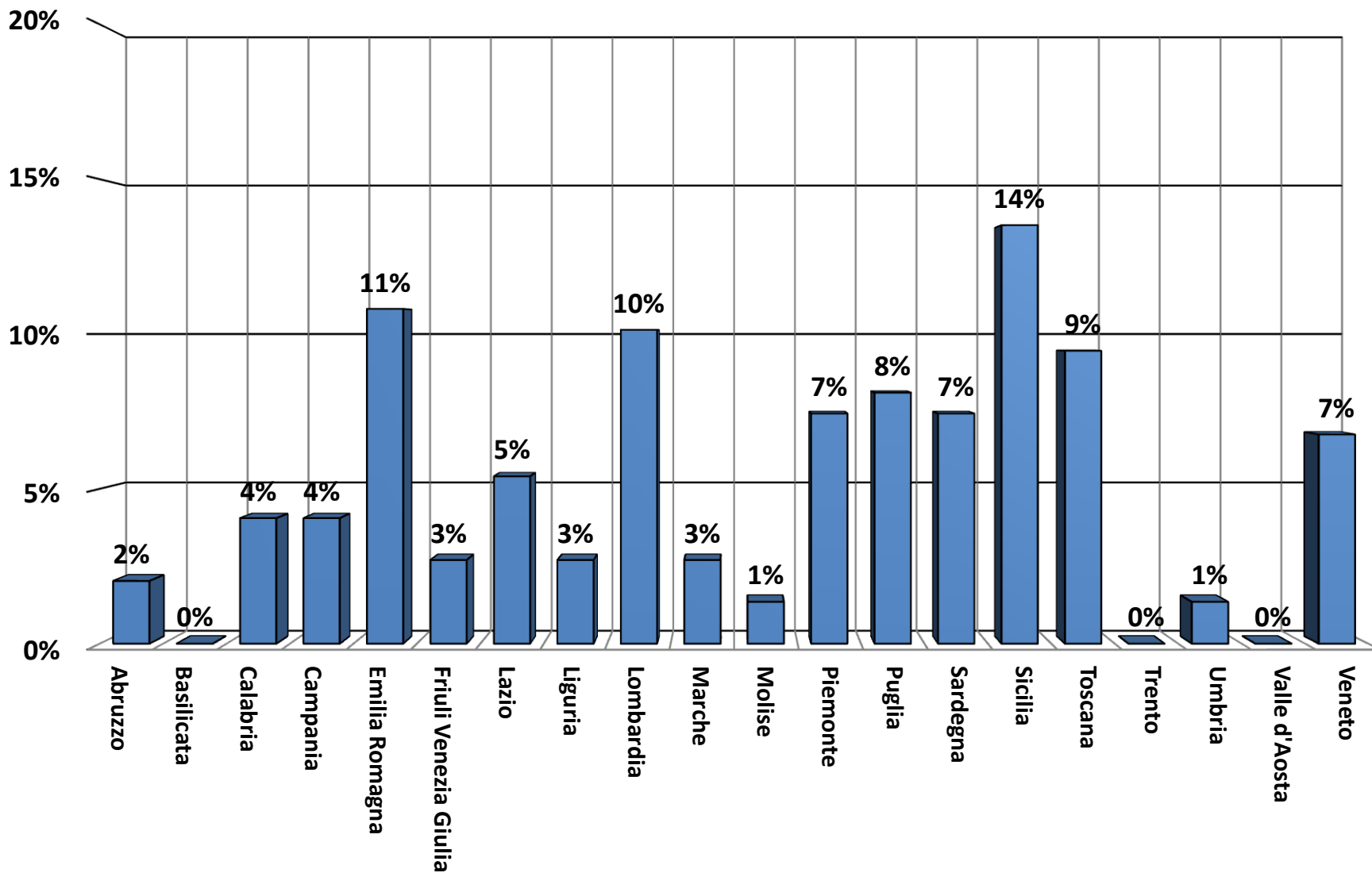
It should however be noted that other types of plants have usually, greater plant complexity and environmental impact, both in terms of environmental recipient involved and of pollutants concerned.



## **Regional distribution**

The graph shows the data by region of the plant subject to statal EIA. As it can be seen, the distribution among the different regions shows a prevalence of plants in Sicily, followed by Emilia Romagna, Lombardy, Tuscany and Puglia. This distribution does not provide indications about the complexity of the plants located in the various regions. In fact, as seen in the distribution among the various types of plants, the vast majority in numerical terms is constituted by the CTE. Another important aspect, examined in the following chart, is the percentage incidence of EIAs under state jurisdiction with respect to the total number of EIAs in charge of each Agency.

# Regional distribution



## Percentage ratio statal EIA/Total EIA

The graph shows the data on the incidence of installations subject to EIAs state jurisdiction with respect to the total number of EIAs in charge of each Agency. The elaboration was carried out for the Agencies that responded to the questionnaire.

As it can be seen, the situation is highly differentiated in the various regions, reaching a maximum of about 25% of EIAs made from installations under state jurisdiction.

It is noted that for some agencies, the percentage may be reduced because of the large number of EIA regional competence.

Even in this case, the distribution does not provide indications about the complexity of the plants located in the various regions. In fact, as seen in the distribution among the various types of plants, the vast majority in numerical terms is constituted by the CTE.

# Percentage ratio

## National IPPC installations/Regional IPPC installations

