

Experiences in Croatia in creating Risk Assessment Forms

Ministry for Environmental and Nature Protection

Dubravka Pajkin Tučkar, Senior Environmental Inspector

Environmental inspection

What do we have to do? What do we regard as most important to inspect?
 What do we want to achieve, how and when?



Industrial Emission Directive

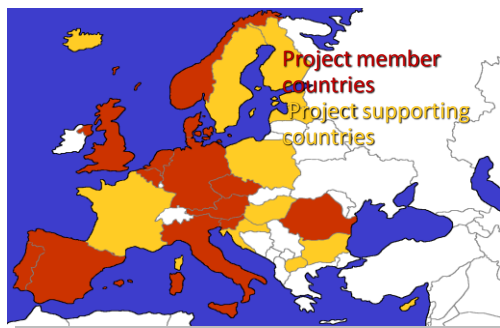
- [Article 23\(4\)](#):
- Based on the inspection plans, the competent authority shall regularly draw up **programmes** for routine environmental inspections, **including the frequency of site visits for different types of installations.**
- The period between two site visits shall be based on a systematic appraisal of the environmental risks of the installations concerned and shall not exceed 1 year for installations posing the highest risks and 3 years for installations posing the lowest risks.
- Croatia transposed IE Directive, 2010/75/EU in national regulations, Environmental Protection Act, Official Gazette 80/13 (EPA)



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- 2010 - 2012. easyTools Project: Risk assessment in inspection planning
main objective of the project was to develop an easy and flexible risk assessment tool as part of the planning of environmental inspections linked to European environmental law (IED and SEVESO) and the RMCEI
- new rule based methodology was developed and tested, called Integrated Risk Assessment Method (IRAM)
- Croatia was participating in the Project

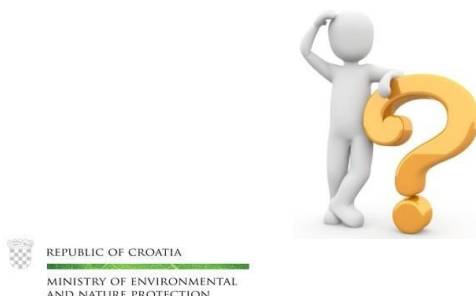


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- 2013. in final annual meeting – wg 4 – ECENA Croatia set the national coordinator for IRAM Method, but how to implement IRAM and start the whole process?

How to build up the system?



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Environmental Inspection Cycle

Basic princip Environmental Inspection Cycle

- **Planning**

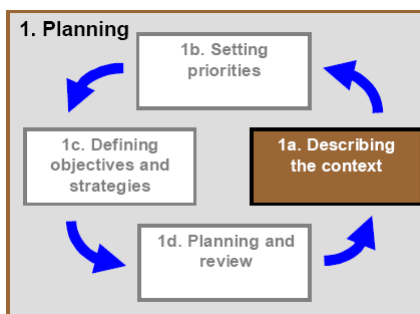
1a. Describing the context

1b. Setting priorities

1c. Defining objectives

1d. Planning and review

- Execution framework
- Execution and Reporting
- Performance monitoring



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Planning cyclic proces

The first step in Planning cyclic proces

1a. Describing the context

- identifying the scope, defining mission, tasks and goals



Planning cyclic proces

1a.Describing the context

- INPUT:** legal obligations to inspect, permit situation, register of activities and installations for which the inspecting authority is competent to (numbers and geographical distribution of installations), information about companies and installations that fall under the competence of the authority, relevant legislation and regulations, compliance behaviour, the inspection resources (financial and human) that are available for the inspecting authority...

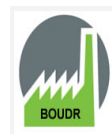


data for the risk assessment IRAM → OUTPUT

Planning cyclic proces

1a.Describing the context

- Data base of installations (IED) in EPA (AZO)
- Data base of issued permits (IED) in MENP (MZOIP)
- Geographical area: Republic of Croatia
- 178 IED installation
- 25 SEVESO upper tier installation /30 lower tier installation
- 267 waste management operators



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http://boudr.azo.hr/Tvrtke.aspx

Administracija

Korisnik:

Zaporka:

OK

Početna stranica
Popis tvrtki
Popis akata
Popis korisnika
Zatražite pristupne podatke
Kontakt
Odjava

Očividnik uporabljenih dozvola kojima su utvrđeni objedinjeni uvjeti zaštite okoliša i rješenja o objedinjenim uvjetima zaštite okoliša za postojeća postrojenja

Tvrtke

Unesite pojam za pretraživanje: - Pretraži -
(Unesite dio naziva tvrtke, broja djelatnosti, naziva djelatnosti, MBSa, sjedišta ili naziva grada)

	R.Br.	Tvrtka	Sjedište	Grad	Županija	MBS	Oznaka djelatnosti	Broj postrojenja tvrtke
Detalji	102	"PETRINJAK" proizvodnja, trgovina i usluge	Horvatsko bb	Klenovnik	Varaždinska županija	92384374	6.6a	1
Detalji	159	6. maj d.o.o.	Tribje 2	Umag	Istarska županija	040053074	5.4	1
Detalji	123	ABS Sisak d.o.o.	Braće Kavurić 12	Sisak	Sisačko - moslavačka županija	120002079	2.2	1
Detalji	116	Adria Čelik d.o.o.	dr. Franje Tuđmana 78	Kaštel Sućurac	Šplitsko - dalmatinska županija	080777902	2.4	1
Detalji	93	Agencija za gospodarenje otpadom d.o.o. Dubrovačko-neretvanske županije	Pred dvorom 1	Dubrovnik	Dubrovačko - neretvanska županija	090019826	5	1
Detalji	51	Agrokoka - Pula d.o.o.	Valmade 58	Pula	Istarska županija	040055867	6.6a	1
Detalji	148	Agrokor energija d.o.o.	Trg Dražena Petrovića 3	Zagreb	Grad Zagreb	080738166	5	1
Detalji	18	Agromedimurje	Rudera Boškovića 10	Čakovec	Međimurska županija	070013017	6.6b	1
Detalji	140	Agroproteinka d.d.	Strojarska cesta 11	Kraljevec	Grad Zagreb	080758522	6.5	1
Detalji	37	Aluflexpack Novi d.o.o.	Murvica b.b.	Zadar	Zadarska županija	110029472	6.7	1
Detalji	46	Belje d.d.	Sv. I. Krstitelja 1a	Darda	Osječko - baranjska županija	030023435	6.6b	1
Detalji	47	Belje d.d.	Sv. I. Krstitelja 1a	Darda	Osječko - baranjska županija	030023435	6.6c	1
Detalji	6	Belje d.d.	Industrijska zona 1	Darda	Osječko - baranjska županija	030023435	6.6c	1
Detalji	4	Belje d.d.	Industrijska zona 1	Darda	Osječko - baranjska županija	030023435	6.6c	1

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http://boudr.azo.hr/Postrojenja.aspx?TvrkaID=55

Datoteka Uređivanje Prikaz Favoriti Alati Pomoć

AGENCIJA ZA ZAŠTITU OKOLIŠA

Očividnik uporabnih dozvola kojima su utvrđeni objedinjeni uvjeti zaštite okoliša i rješenja o objedinjenim uvjetima zaštite okoliša za postojeća postrojenja

Administracija

Korisnik:

Zaporka:

OK

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Popis tvrtki
Popis akata
Popis korisnika
Zatražite pristupne podatke
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Odjava

OPĆI PODACI

Naziv: Aluflexpack Novi d.o.o.

Djelatnost: Postrojenja za površinsku obradu tvari, predmeta ili proizvoda u kojima se koriste organska otapala, osobito za apretiranje, tiskanje, premazivanje, odmašćivanje, prevlačenje vodonepropusnim slojem, obradu zatvaranja površinskih pora, bojenje, dičenje ili impregniranje, kapaciteta potrošnje preko 150 kg na sat ili više od 200 tona na godinu.

Adresa: Murvica b.b.

Grad: Zadar

Županija: Zadarska županija

MBS: 110029472

Postrojenja

Naziv: Aluflexpack Novi - pogon Umag

Adresa: Ungarija b.b.

Grad: Umag

Županija: Istarska županija

Djelatnost: Postrojenja za površinsku obradu tvari, predmeta ili proizvoda u kojima se koriste organska otapala, osobito za apretiranje, tiskanje, premazivanje, odmašćivanje, prevlačenje vodonepropusnim slojem, obradu zatvaranja površinskih pora, bojenje, dičenje ili impregniranje, kapaciteta potrošnje preko 150 kg na sat ili više od 200 tona na godinu.

Novo: Ne

Komentar:

--- Akti postrojenja ---

Naziv: Rješenje o objedinjenim uvjetima zaštite okoliša

Redni broj: 39

Klasa: UP/I 351-03/12-02/14

Ur. broj: 517-06-2-2-1-12-32

Datum Izdavanja: 31.5.2013.

Datum do kojeg akt vrijedi: 30.5.2018.

Link dokumenta: [Rješenje 24.06.2013 2 Aluflexpack.pdf](#)

AZO Datum Ur. broj: 27.6.2013.

AZO Ur. broj: 18-13-5059/u

10:38
2.10.2015.

ID 1 obveznika okolišne dozvole za IRAM - Microsoft Excel

ID	Name of operator	Address/Location	County	Activity
1.	HEP-Proizvodnja d.o.o. - EL-TO ZAGREB	Zagorska 1	Zagreb	Grad Zagreb
2.	HEP-Proizvodnja d.o.o. - KTE Jertovec	Jertovec, Jertovec 151	Konjšćinja	Krapinsko - zagorska
3.	HEP-Proizvodnja d.o.o. - TE PLOMIN 1	Plomin bb	Plomin	Istarska
4.	HEP-Proizvodnja d.o.o. - TE RJEKA	Šetaliste kostrenskih pomoraca 80	Kostrena	Primorsko - goranska
5.	HEP-Proizvodnja d.o.o. - TE SISAČ	Ulica braće Bobetko 40	Sisak	Sisačko - moslavačka
6.	HEP-Proizvodnja d.o.o. - TE-TO OSIJEK	Martina Divalta 203	Osijek	Osječko - baranjska
7.	HEP-Proizvodnja d.o.o. - TE-TO ZAGREB	Kuševačka 10 a	Zagreb	Grad Zagreb
8.	TE PLOMIN d.o.o. - TE PLOMIN 2	Plomin bb	Plomin	Istarska
9.	HEP-Toplinarstvo d.o.o., Pogon Osijek	Zagreb, Miševačka 15a	Ulica cara Hadrijana 4, Osijek	Osječko - baranjska
10.	Gradska toplana d.o.o.	Tina Ujevića 7	Karlovac	Karlovačka
11.	INA - Industrija nafte d.d. Rafinerija nafte Sisak	A. Kovačića 1	Sisak	Sisačko - moslavačka
12.	INA d.d., SD Rafinerija i marketing, Centar proizvodnje, Rafinerija nafte Rijeka	Urinj	Kostrena	Primorsko - goranska
13.	PETROKEMIJA d.d.	Kutina, Aleja Vukovar 4	Kutina, Aleja Vukovar 4	Sisačko - moslavačka
14.				4.2. (a), (b), (c), (e)

12:00
14.9.2015.

Planning cyclic proces

1b. Setting priorities

(Croatia approach and experiences in creating risk assessment forms)

- Croatia used experience of our neighboring country-Slovenia trough ECRAN and IMPEL meetings
- Participation in these network was of the great benefit for Croatia



- advantage:
 - no language barrier
 - there is no significant differences between type and number of IED installation and other installations /operators

Planning cyclic proces

1b. Setting priorities

Impact criteria (IC) in Risk Assessment Forms



- Emissions into the air
- Amount of hazardous and non hazardous waste
- Risk of accidents due to hazardous substances
- Compliance with Permit conditions
- Emissions to the water
- Noise emissions
- Impact on human health and environment
- Distance to sensitive areas or objects



• 1b. Setting priorities

Operator performance criteria

- Environmental management system ISO 14001
- Willingness of the operator to follow the rules



Planning cyclic proces

1b. Setting priorities

- National coordinator for implementation of IRAM formed **working group of 5 inspectors** and performed training in web application IRAM and started to develop a set of risk criteria that are relevant for Croatia installation/operators (you can use and copy Template from IRAM but it is not always applicable)



- Open discussion in developing impact criteria (IC) for IED installation and (IC) for operators in waste management sector
- Currently - SEVESO (IC) is in realization

Planning cyclic proces

1b. Setting priorities

- on an annual meeting for environmental inspectors in 2014. information about obligation of using risk assessment tool (IRAM) was passed to all inspectors
- national coordinator provides registration of all inspectors in the system, detailed instructions of use IRAM
- obligation for each inspector to report about IRAM evaluation through consolidated Report
- good cooperation between inspectors and coordinator



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Reporting – consolidated report

	Inspection action/ follow up	measures ordered by minutes, YES/NO, if YES, indicate measures and are they completed	Inspectors order / measures ordered / order completed	Misdemeanor proposal (breach of what provisions)
	Hazardous substances			
	No hazardous substances in quantities proscribed by Regulation ²	<input type="checkbox"/>	Quantities less than lower tier according to Regulation ²	<input type="checkbox"/>
			Quantities in accordance with lower tier to Regulation ²	<input type="checkbox"/>
			Quantities in accordance with upper tier to Regulation ² – liable to Safety Report	<input type="checkbox"/>
8.	Compliance with Regulation ²			
	² Regulation on Control of Major Accidents			
	Inspection action/ follow up	measures ordered by minutes, YES/NO, if YES, indicate measures and are they completed	Inspectors order / measures ordered / order completed	Misdemeanor proposal (breach of what provisions)
9.	Conclusions / further actions due to IRAM			
	A) Installation is in compliance with Environmental Permit/regulation and minor irregularities. Next inspection according to IRAM B) Infringements with possible effects to human health and pollution determined. Next inspection according to IRAM C) Major Infringements. Next inspection in accordance with inspection order			



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20.10.2015.

Integrated Risk Assessment for Inspection Planning

Browse data
0 records are currently selected.

1 2 3 5 >> >|

	nameInspector	InspektionObject	IdentificationNumber	Inspection task	risk category	Inspection category	Inspection frequency	latest inspection date
Apply filter	X			Nadzor IED	2	B	24	13.05.2015
<input type="checkbox"/>	31 Snjezana Simunic	HEP-PROIZVODNJA d.o.o. Pogon Jertovec	2	Nadzor IED postrojenja	2	B	24	13.05.2015
<input type="checkbox"/>	32 Ivan Pusic	BELJE d.d. - farma GRADEC	139	Nadzor IED postrojenja	2	B	24	28.10.2015
<input type="checkbox"/>	33 Ante Belamaric	Omiat Novi d.o.o.	157	Nadzor IED postrojenja	2	C	24	20.11.2015
<input type="checkbox"/>	34 Marijana Bozicevic	PPC BUZET doo BUZET	28	Nadzor IED postrojenja	2	B	24	18.04.2016
<input type="checkbox"/>	35 Zivana Krnic	TVORNICA OPLEMENJENIH FOLIJA	155	Nadzor IED postrojenja	2	B	24	13.05.2016
<input type="checkbox"/>	36 Jadranka Krstelj	SIPRO d.o.o.	154	Nadzor IED postrojenja	2	A	24	15.05.2016
<input type="checkbox"/>	37 Snjezana Simunic	HEP-Toplinarstvo d.o.o., Pogon Osijek	9	Nadzor IED postrojenja	2	B	24	09.09.2016
<input type="checkbox"/>	38 Dubravka Pajkin Tuckar	Viro Tvornica secera d.d.	86	Nadzor IED postrojenja	2	B	24	10.09.2016
<input type="checkbox"/>	39 Zora Jelic	Dalekovod Proizvodnja d.o.o.	29	Nadzor IED postrojenja	2	B	24	11.09.2016
<input type="checkbox"/>	40 Zivana Krnic	GIRK KALUN D.D.	34	Nadzor IED postrojenja	2	B	24	16.09.2016

11:54 30.9.2015.

Planning cyclic proces

1d. Planning and execution



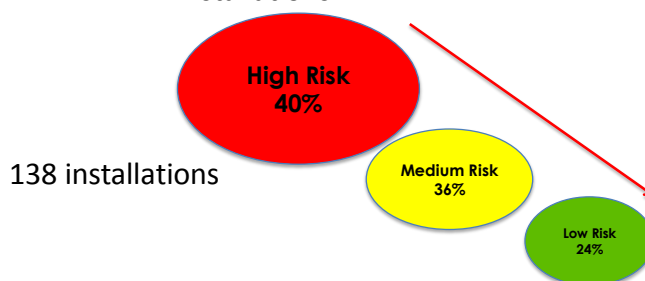
Planned actions & Actions in 2015. (138 operators evaluated in IRAM)

138 operators/ total	IED 65	%	WMI 73	%
HR/12m	28	43%	27	38%
MR/24m	25	39%	24	32%
LR/36m	12	17%	22	30%

- IED installation
- WMI-waste managemet instalations(hazardous waste, recycling)

Planning cyclic proces

Outcome RA: HR 28 IED instalations
 MR 25 IED instalations
 LR 12 IED instalations
 HR 27 WM installations
 MR 24 WM installations
 LR 22 WM installations



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Planning cyclic proces

1d. Planning and execution



Planned actions

2015 and 2016

- coordinated inspection controls of all IED, SEVESO and waste management instalation (WMI) to collect information and assess the risk in IRAM easy tools

2017

- adequate enforcement actions on all High Risk sites (HR) with low level of compliance sites, especially the ones with high risk classification (HR) in order to reduce the non compliances
- inspection of all high risk sites (HR)

2018

- follow-up inspections in order to check whether the measures were implemented and if compliance has improved (in case of HR and low compliance sites) and inspection of the MR



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Thank you for attention

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