



Internationale Kommission zum Schutz des Rheins
Commission Internationale pour la Protection du Rhin
Internationale Commissie ter Bescherming van de Rijn

INTERNATIONAL WARNING- AND ALARM PLAN RHINE

State: 01.01.14

1. General remarks

- 1.1 The objective of the Warning and Alarm System is, to pass on reports on sudden pollutions with substances noxious to water in the Rhine watershed, if the amount and concentration may detrimentally impact the Rhine water quality and to warn the authorities in charge of fighting accidents so that

- Threats may be fought,
- Causes may be identified
- Polluters may be identified
- Measures to clean up pollution may be taken
- Measures to avoid and reduce damage may be taken,
- Consequential damage may be avoided.

Damaging incidents, which are expected to raise great public interest, should be reported as information.

- 1.2 7 international main warning centres (IHWZ, see annex 1) are implied: Amt für Umwelt und Energie des Kantons Basel-Stadt, Basel (R1); Préfecture du Bas-Rhin, Strasbourg (R2) Landespolizeidirektion Göppingen, Führungs- und Lagezentrum (R3); Wasserschutzpolizeistation Wiesbaden (R4); Lagezentrum des Ministeriums des Inneren, für Sport und Infrastruktur, Mainz (R5); Bezirksregierung Düsseldorf (R6), Rijkswaterstaat directie Oost-Nederland, Arnheim (R7), and the secretariat of the International Commission for the Protection of the Rhine (S).
- 1.3 The international main warning centre, in the area of competence of which the accident or pollution event occurs, is in charge of the initial report (annex 2). This competence is only transferred to another international warning centre, when coordination per telephone is not possible or the location of the accident is unknown. If the responsibility is not obvious, the warning centres in charge are obliged to come to a rapid agreement on who will take over the responsibility for following up the case in question.
- 1.4 A report can be passed on as a "warning" or as "information". In case of serious water pollution, a "warning" will always be issued.
- 1.5 Reports by fax and by telephone must always follow the exact pattern of reports (annex 3).
- 1.6 In case of first reports, at least the points A to F of the report pattern must be included. If the pollutants are not known, E of the initial report need not be indicated, so that delayed reporting can be avoided. If required, reports on points G to I must follow as rapidly as possible.

- 1.7 In case of a warning, the international warning centres must at all times dispose of sufficient qualified personnel familiar with the proceedings. The documents belonging to the Warning and Alarm Plan and a manual or a database on dangerous goods and pollutants accompanied by a list of identifications (CAS) must always be at hand (see annex 4 for manuals on dangerous goods and pollutant databases).
- 1.8 All international main warning centres keep a chronological reporting book of each warning. This reporting book includes:
- Time and content of all incoming and outgoing telephone calls, fax reports and emails,
 - List of persons reported to
 - Measures, investigations,
 - Monitoring results.
- 1.9 The International 'Warning and Alarm System Rhine does not alter existing regional and national warning services. Reports within the international Warning and Alarm System Rhine are immediately passed on by the international warning centres to the regional and national warning authorities.
- 1.10 The telephone numbers of the international warning centres and of the secretariat and the international dialling codes are listed in annex 6. Modifications of fax and telephone numbers must immediately be reported to the international warning centres and to the secretariat.
- 1.11 When monitoring data are in excess of the guidance values listed in annex 5, information according to the Warning and Alarm Plan will be released.

2. Fax reports

- 2.1 The international warning centre in charge passes on the first report per fax to the downstream international main warning centres as rapidly as possible.

If the location of the accident is known, reports are sent to all downstream international warning centres and to the secretariat of the ICPR. If the location of the accident is not clearly identified, a report („Search report“) is sent to all international main warning centres up- and downstream and to the secretariat of the ICPR.

Pollutions in Sarre and Moselle are only passed on within the Warning and Alarm System Rhine if the accident is suspected to impact the Rhine. R5 enters pollution events relevant for the Rhine into the Warning and Alarm System Rhine.

- 2.2 Questions per fax and their answers are directly addressed to the relevant international Warning and Alarm Centre with copies to all other Warning and Alarm Centres up- and downstream which also received the first report, as well as to the ICPR secretariat.
- 2.3 Addressees of fax reports, questions and answers per fax must be identifiable (abbreviations as listed in annex 6 are to be used).

2.4 A fax report begins as follows:

SOS - Rhin - SOS - Rhein - SOS - Rijn - SOS

très urgent - eilt sehr - spoed

Avertissement - Warnung - Waarschuwing
ou/oder/of

Information - Information - Informatie

2.5 For fax reports the electronic “Word” template is to be used.

2.6 After releasing a warning, the international main warning centres having received the warning must report to the releasing authority by fax that the warning has been received and understood. If the releasing warning centre does not receive such report in return, the warning must be repeated.

3. Telephone reports (only in cases of fax failures)

3.1 The international main warning centre (areas of responsibility see annex 2) passes on the report by telephone to the next affected international main warning centre(s):

In particular cases, and if required due to local conditions, the report can be passed on upstream the main direction of flow. Double reports are to be avoided.

3.2 In cases of pollutions in Switzerland, only the international main warning centre in Basle will pass on the report to the international main warning centre in Karlsruhe. The international main warning centre in Strasbourg will also receive the report from Basle, but not pass it on to Göppingen.

3.3 In case of an accident in the area of responsibility of the international warning centre Göppingen the international main warning centre Basle and Strasbourg will, if they are considered to be “downstream” of the location of the accident, and the international main warning centre Mainz be directly informed by Göppingen. In this case, Basel and Strasbourg need not pass on the report.

3.4 In cases of pollutions in the area of responsibility of the international main warning centre Göppingen, only the international main warning centre in Göppingen will pass on the report to the international main warning centre in Mainz. The international main warning centre in Wiesbaden will also receive the report from Göppingen, but not pass it on to Mainz.

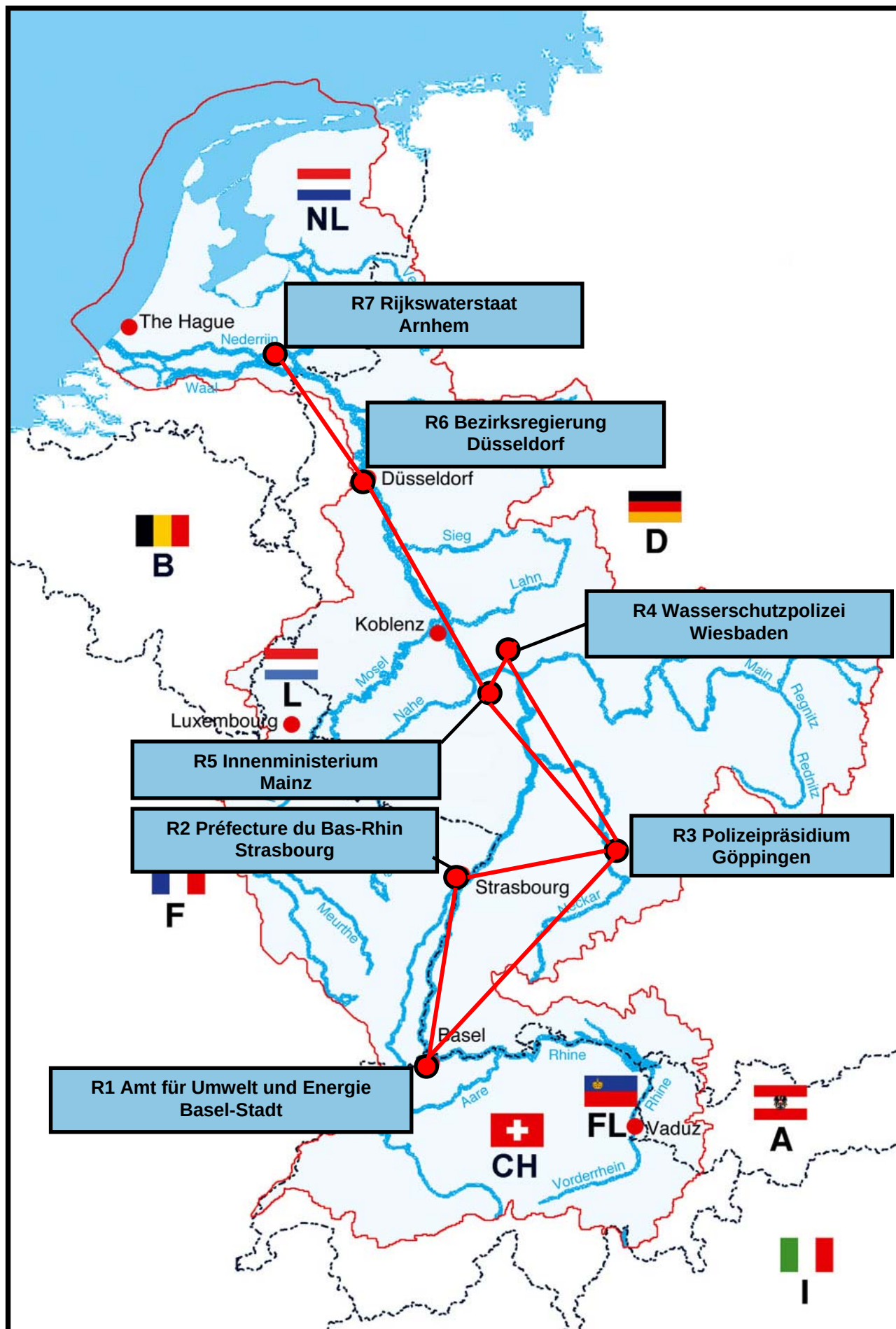
3.5 In case of an accident in the area of responsibility of the international warning centre Mainz, the international main warning centre Göppingen and Wiesbaden will, if they are considered to be “downstream” of the location of the accident and the international main warning centre Düsseldorf be directly informed by Mainz. In this case, Göppingen and Wiesbaden need not pass on the report.

3.6 Pollutions in Sarre and Moselle are only passed on within the Warning and Alarm System Rhine if the accident is suspected to impact the Rhine. R5 enters pollution events relevant for the Rhine into the Warning and Alarm System Rhine.

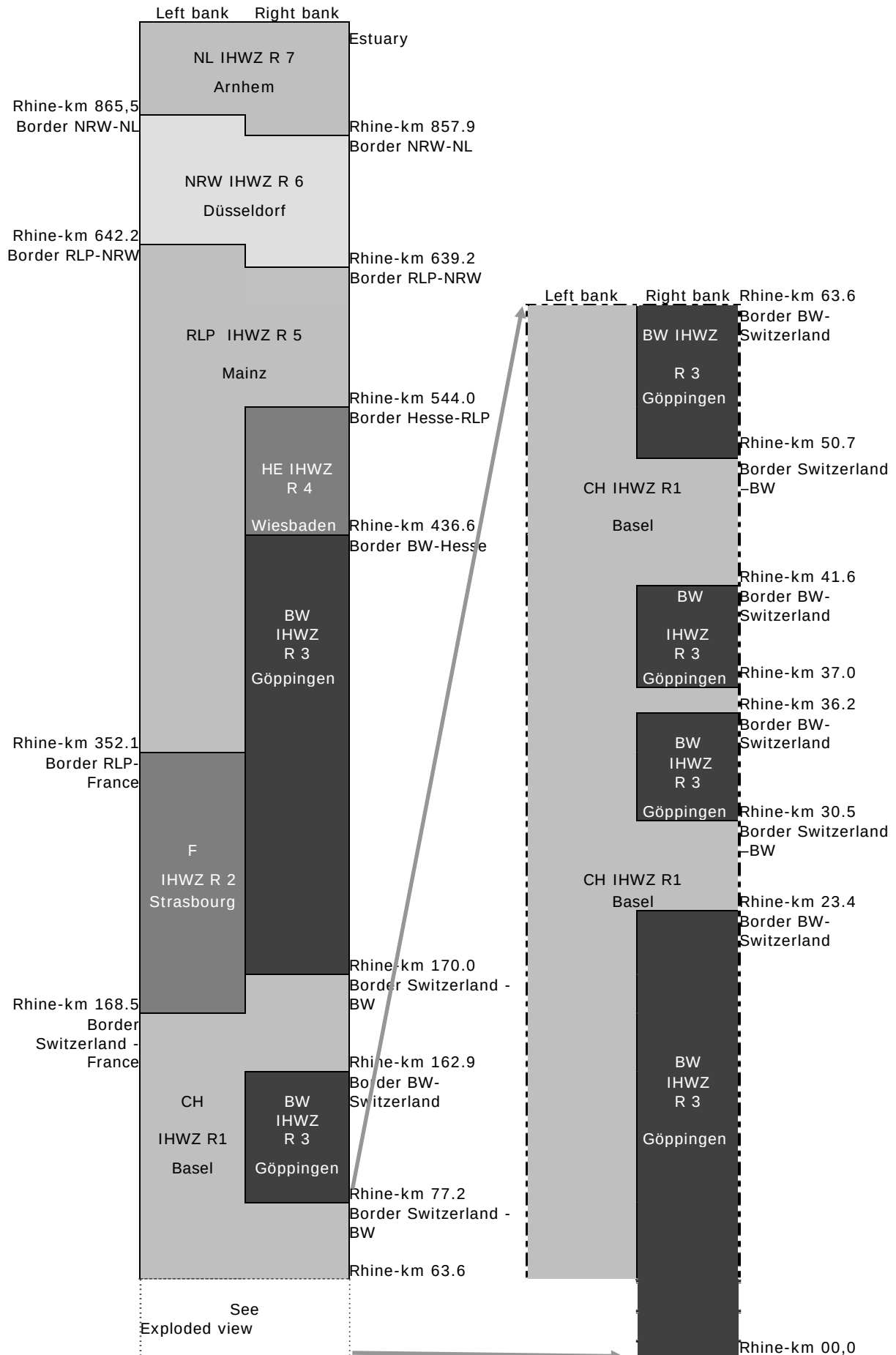
4. All clear signal

- 4.1 As soon as the danger is over after a „Warning“, it will be cleared per fax for the different sections (reporting scheme, points I to J). The all clear signal is passed on to all up- and downstream international main warning centres which received the fax report and to the secretariat of the International Commission for the Protection of the Rhine. The addressees should be recognizable.
- 4.2 For river sections in the area of responsibility of two international main warning centres, the centres concerned will first decide on which centre gives the all clear signal.
- 4.3 As soon as the all clear signal has been given for a river section, the next downstream international main warning centre takes over.

Map of the international main warning centres



Areas of responsibility of the international main warning centres according to the Warning and Alarm Plan Rhine (Annex 2)



INTERNATIONAL WARNING- AND ALARM SYSTEM “RHINE”

SOS-Rhein–SOS–Rhin–SOS–Rijn–SOS-Rhine

eilt sehr - très urgent – zeer spoedeisend
–very urgent

Meldende Stelle – Service de déclaration – Meldende instantie
- Reporting authority

IHWZ/CPIA/IHWS/IFWC:

Telefon – téléphone – telefoon - Telephone

FAX:

- ☐ **Warnung** - Avertissement - Waarschuwing
- Warning
- ☐ **Information** - Information - Informatie
- Information
- ☐ **Suchmeldung** - Avis de recherche - Zoekactie
- Search report
- ☐ **Entwarnung** - Levée d'avertissement - Einde van de waarschuwing
- All clear signal
- ☐ **Ende Suchmeldung** - Fin de la recherche - Einde van de zoekactie
- End Search report

Erstmeldung
Premier avis
Eerste melding
First report

☐

Folgemeldung
Avis consécutif
Vervolgmelding
Following report

☐

Datum / Date / Datum / Date		Anlagen / Annexes / Bijlagen / Anexes:	
Meldende Person Agent responsable du message Meldende persoon Reporting person			
Betreff / Objet / Betreft / Concern			
Bezug/Bearbeitungsnummer Référence/Numéro de dossier Referentie/Verwerkings-nummer Reference/Processing-number		Anzahl Seiten (inkl. Deckblatt) Nombre des pages (avec page de garde) Aantal bladzijden (incl. voorblad) Number of pages (including cover page)	

Bitte sofort aushändigen ! A transmettre immédiatement !
Direct in handen ! Please hand out directly !

Reporting scheme for passing on reports

**SOS - Rhein - SOS - Rhin - SOS - Rijn -
SOS-Rhine**
eilt sehr - très urgent – zeer spoedeisend
– very urgent

(A) Meldung durch - Déclaration de - Melding van -
Declaration of

IHWZ	Name	Datum	Uhrzeit
CPIA	nom	date	heure
IHWS	naam	datum	tijd
IFWC	Name	Date	Time

(B) Ereignis - Événement – Voorval – Event

Unfall ☐	Betriebsstörung ☐	Erhöhte Konzentration ☐
Accident	Panne d'exploitation	Concentration surélevée
Ongeval	Bedrijfsstoring	Verhoogde concentratie
Accident	Breakdown	Increased concentration

(C) Ort - Lieu – Plaats -
Place

Datum		Uhrzeit	
Date		heure	
Datum		tijd	
Date		Time	
Gewässer	Fluss-km	Uferseite/côté de rive/oeverzijde	
cours d'eau	PK		
rivier	Rivierkm		
river	River km		
		Links ☐	Mitte ☐
		gauche	milieu
		links	midden
		left	middle
		Rechts ☐	droite ☐
			rechts
			rigt
Wasserstand		Pegel	
niveau d'eau cm		station limnimétrique	
waterstand		meetpunt	
water level		gauging station	
Abfluss			
débit m³/s			
afvoer			
runoff			

(D) Stoffinformationen - Informations sur la substance - Informatie over de stof - Information on substance

Stoff substance stof Substance			CAS Nr. n° CAS CAS-nr.		
Konzentration concentration concentratie Concentration			Eingetragene Menge quantité rejetée geloosde hoeveelheid Discharged quantity		kg
gemessen mesurée gemeten measured		Berechnet calculée berekend Calculated		Einfließdauer durée du rejet duur van de instroom Duration of discharge	

(E) Ausmaß der Verschmutzung Etendue de la pollution Omvang van de verontreiniging Extent of pollution

Fischsterben mortalité piscicole vissterfte fish death	☐	Färbung des Wassers coloration de l'eau verkleuring van het water Water coloration	☐	Geruchsentwicklung émission d'odeur Geurontwikkeling Odor development	☐
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Schwimmende Stoffe - substances flottantes - drijvende stoffen - floating substances

Länge longueur lengte Length		Breite largeur breedte Width	
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(F) Getroffene Maßnahmen - Mesures prises Getroffen maatregelen - Measures taken

(G) Medienreaktion - Réaction des médias Reactie van de media - Media reaction

(H) Weitere Informationen - Informations additionnelles - Aanvullende informatie Further information

Sobald die Gefahrenlage vorüber ist, ist nach einer Warnung folgende Meldung abzugeben:

Dès que la situation de danger est passée, un avertissement doit être suivi du message suivant :

Zodra het gevaar voorbij is, dient na een waarschuwing de volgende melding te worden doorgegeven:

As soon as the danger is over, the following report is to be issued following a warning

SOS-Rhein-SOS-Rhin-SOS-Rijn-SOS-Rhine
eilt sehr - très urgent – zeer spoedeisend – very urgent
Entwarnung - Levée d'avertissement
Eiende van de waarschuwing – All clear signal

(I) Ort - Lieu – Plaats - Place

Datum
Date
Datum
Date

Uhrzeit
heure
tijd
Time

Gewässer
cours
d'eau
rivier
River

Uferseite - côté de rive – oeverzijde- river bank

Links
gauche
links
left

Mitte
milieu
midden
middle

Rechts
droite
rechts
right

(J) Entwarnung - Levée d'avertissement

Einde van de waarschuwing – All clear signal

Entwarnte Strecke

Riviergedeelte waarvoor de waarschuwing is ingetrokken

Tronçon concerné par la levée de l'avertissement

River section concerned

von km

van km

du PK

from

river

km

bis km

tot km

au PK

to river

km

Begründung der Entwarnung

Motifs de la levée de l'avertissement

**Motivering van het einde van de
waarschuwing**

Reason for the all clear signal

Bitte sofort aushändigen !
A transmettre immédiatement !
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Annex 4**Manuals on Hazardous Substances and Pollution databases****French**

- Guide orange des Sapeurs Pompiers de Genève

German

- Gefahrgut-Handbuch, K. Ridder, Ecomed Verlagsgesellschaft mbH, Landsberg/Lech
- Gefahrgut-Merkblätter, Kühn/Birett, Ecomed Verlagsgesellschaft mbH, Landsberg/Lech
- Handbuch der gefährlichen Güter, Hommel u. a., Springer-Verlag, Berlin
- Chemdata

Dutch

- Vervoer van gevaarlijke stoffen over de weg, Staatsuitgeverij, Den Haag

English

- European Agreement concerning the international carriage of dangerous goods by road (ADR), United Nations, Economic Commission for Europe, Geneva

Pollution databases:

Denomination	Abbrevia- tion	Internet address	Number Of Subst ances:	Language
Gemeinsame Stoffdatenbank des Bundes und der Länder	GSBL	http://www.gsbl.de	320.000	d
Informationssystem für gefährliche Stoffe	IGS	http://igsvtu.lanuv.nrw.de	18.000	d
Stoffdatenbank für bodenschutz- und umweltrelevante Stoffe	STARS	http://www.stoffdaten-stars.de	1.100	d
Gefahrstoffdatenbank der Länder	GDL	http://www.gefahrstoff-info.de	20.000	d
Gefahrstoffinformationssystem Berufsgenossenschaft	GESTIS	http://www.hvbg.de/d/bia/gestis/	8.000	d, e
Wassergefährdungsklassen	WGK	http://www.umweltbundesamt.de/wgs/	2.000	d, e
Transport-Unfall-Informations- und Hilfeleistungssystem	TUIS	http://www.vci.de		d

Criteria for releasing a report within the International Warning- and Alarm System “Rhine”

General criteria

An information, warning or search announcement is released, when pollutants are released in quantities apt to detrimentally impact the Rhine water quality, to damage water organisms and/or to limit the use of the water body, e.g. in cases of

- A considerable excess of limit values for discharge permits;
- serious breakdowns;
- Releases of substances during transportation;
- Unusual rise in the concentration of chemical, physical or organoleptic parameters.

In addition, the individual case must be considered to determine, whether an information or warning is required in cases of

- Reports resulting from continuous biotests in cases of secured „biotest alarms“ (notion related to the procedure);
- Reactions expected in the public and the media.

In cases of dangerous situations and damage, the danger is to be evaluated on the basis of

- Substance properties
- Amounts of substance
- Characteristics of the location
- Extension on the surface.

Guidance values

The following guidance values are recommended for concentrations and pollutant loads leading to an information, warning or search report within the International Warning and Alarm Plan Rhine.

a) Concentration guidance values

The concentration guidance values concern the following monitoring stations along the Rhine:

- Weil am Rhein (CH,D)
- Göppingen (D,F)
- Worms (D)
- Bad Honnef (D)
- Düsseldorf/Flehe (D)
- Bimmen/Lobith (D,NL)

- If values are in excess of these guidance values, and depending on the pollutant concentration and present knowledge, an information, a warning or search report is issued within the Warning and Alarm Plan.

Guidance values for concentrations in excess		
Parameter	Daily mean concentration value	
	Value	Unity
pH	< 6,5 > 9,5	
Conductivity	1000	µS/cm
Oxygen	< 5	mg/l
Heavy metals		
Arsenic	10	µg/l
Lead	20	µg/l
Cadmium	3	µg/l
Chromium total	50	µg/l
Copper	20	µg/l
Nickel	20	µg/l
Mercury	1	µg/l
Zinc	500	µg/l
Organic Micro-pollutants		
PAH (individual substances)	0,1	µg/l
Sum of PAH	0,5	µg/l
Biocides (individual substances)	0,3	µg/l
PCB (individual substances)	0,1	µg/l
Plant protective agents (individual substances)	0,3	µg/l
Pharmaceutical substances (individual substances)	0,3	µg/l
Other organic micro-pollutants (individual substances)	3	µg/l
Further inorganic parameters		
Cyanide	5	µg/l
Chloride	300	mg/l
Sum parameters		
TOC	15	mg / l
AOX	25	µg/l
Radioactivity		
Parameter	Activity	
Total-γ (total-Gamma)	25	Bq / L above ≥ 2 h
Tritium	100	Bq / L

b) Guidance values for discharged loads

- In general, daily loads apply to indications of the polluter.
- In cases daily loads exceed guidance values, information or warning is issued by the authorities in charge, all depending on amounts and available knowledge.

Guidance values for discharged loads		
Parameter	Daily loads	
	Value¹	Unity
Heavy metals		
Arsenic	0,5	t
Lead	1	t
Cadmium	0,15	t
Chromium total	2,5	t
Copper	1	t
Nickel	1	t
Mercury	50	kg
Organic micro-pollutants		
PAH (individual substances)	5	kg
Sum of PAH	25	kg
PCB (individual substances)	5	kg
Biocides (individual substances)	15	kg
Plant protective agents (individual substances)	15	kg
Pharmaceuticals (individual substances)	15	kg
Other organic micro-pollutants (individual substances)	150	kg
Further inorganic parameters		
Cyanide	250	kg
Sum parameters		
TOC	750	t
AOX	1,25	t
Radioactivity		
Parameter		
Total-γ (total-Gamma)	1.250	GBq
Tritium	5.000	GBq

c) Remarks

Independently of the afore indicated guidance values concerning the release of a supra-regional information/warning/search report these will not be able to cover the requirements in the immediate vicinity of the accident location. These requirements must be pointed out in local or regional Warning and Alarm Plans.

It is up to the expert judgement of the authorities in charge to decide, whether information and search reports on events leading to concentrations or loads below the guidance values are passed on downstream. The addressees for information or search reports depend on the context.

¹ The guidance values for discharged loads leading to the release of information were calculated on the basis of the guidance values for concentrations in excess at the monitoring station Mainz-Wiesbaden during mean normal runoff.