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# Managing Public Health Risks from Environmental Incidents Guidance for Wales

**Kristian James**  
Principal Environmental Public Health Specialist

# What is an Environmental Incident?

**“Any event (usually acute) in which there is, or could be, public exposure(s) to chemical or other hazardous substances which cause, or have the potential to cause adverse health impacts”**

- Excluded incidents:
  - with no apparent public health risks
  - of occupational exposures with no public health risk
  - involving non-ionising radiation
  - involving drugs and other substances of abuse
  - single case poisonings **excluding CO**



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# Llandow Fire II 2013



BBC



ITV



Public Health Wales

# Llandow Fire II 2013





# Asbestos concerns: Cwmcarn High School

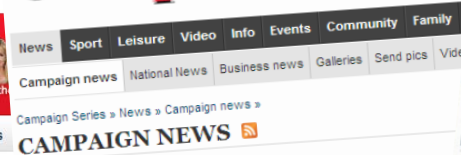


## Cwmcarn High School to remain closed because of asbestos

Sion Morgan, WalesOnline | Nov 19 2012



## Campaign



## Asbestos levels at Cwmcarn school could be 'much lower' than first thought



By Natalie Crockett - education reporter

3:32pm Monday 4th February

An earlier study said asbestos levels at Cwmcarn High School were a potential health hazard.

But new tests indicate risks to pupils and teachers are much lower.

ASBESTOS levels at a Valleys school closed over health fears could be much lower than once thought, a new report reveals.

The Health and Safety Executive arranged for the Health and Safety Laboratory (HSL) to carry out testing at Cwmcarn High School, after an earlier investigation by Santia Asbestos Management Ltd suggested asbestos debris in the ceiling voids was responsible for above average concentrations of airborne asbestos fibres in classrooms.



Asbestos levels at Cwmcarn school could be 'much lower' than first thought



Many parents and pupils want Cwmcarn school to reopen

Hundreds of demonstrators have called for a school which closed amid warnings of asbestos to be reopened.

The protest follows a health and safety watchdog saying it had no immediate concerns over asbestos at Cwmcarn High School, Caerphilly county.

The Health and Safety Executive (HSE) said the school was essentially uncontaminated after a second round of tests.

### Related Stories

- More concerns over asbestos school
- School asbestos risk scaled down
- Governors control asbestos school



16 October 2012 Last updated at 09:55



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# Mixed waste fire: Nantyglo, Blaenau Gwent



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# Beach debris, fly tipping...



Photo: Labwaste Ltd



# Welsh Government, Health Protection Committee

Managing public health risks  
from environmental incidents

Guidance for Wales

March 2014



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# Why is it needed?

Strengthen and support organisations and collaborative actions to manage public health aspects of incidents

- Defining an environmental incident
- Clarifying roles and responsibilities
- Outlining incident notification
- Management procedures
- Describing resources available to inform action.



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# The guidance does not...

- duplicate existing Civil Contingencies Command and Control level plans or other incident response arrangements
- supersede Local Resilience Forum plans

# Who should use it?

## Core organisations

- Local Authorities
- Public Health Wales
- Public Health England (CRCE-Wales) Centre for Radiation, Chemical and Environmental Hazards (Wales)
- Health Boards
- Natural Resources Wales

## Likely partner agencies include

- Emergency Services
- Health and Safety Executive
- Food Standards Agency
- DWI and Water Companies
- Maritime and Coastguard Agency



# The guidance is in two parts.

- Part 1 Generic guidance  
How environmental incidents should be managed.

- Part 2 Detailed for incidents that affect

Air / Land / Controlled Waters

Drinking Water

(in conjunction with the Communicable Disease Outbreak Plan for Wales)



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# Environmental incidents

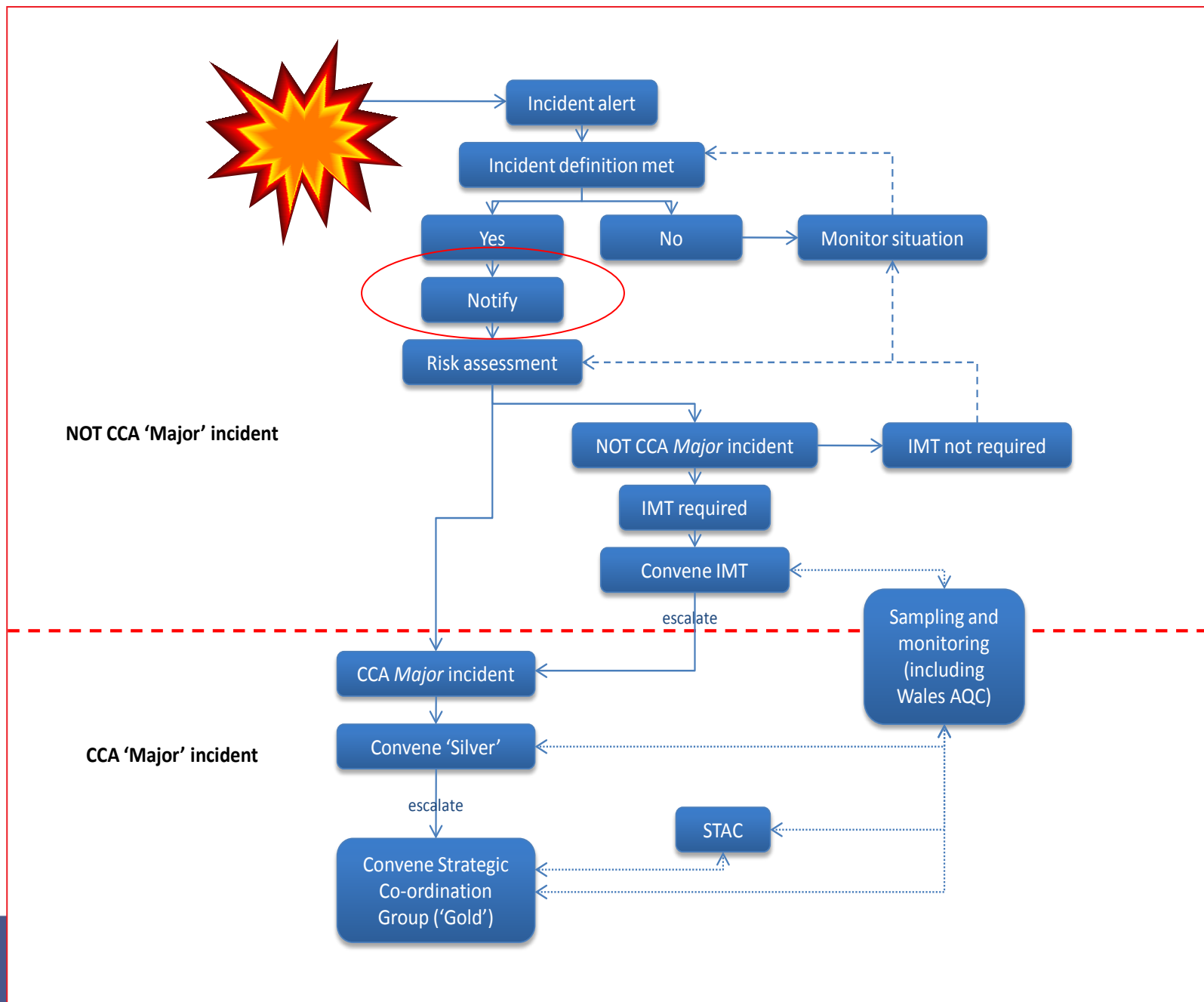
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# Notification process

- Incident meets definition (may /may not be a 'major' incident)
- Emergency services notify LA, NRW, PHW, PHE CRCE (Centre for Radiation, Chemical and Environmental Hazards - Wales)
- Notification agreements exist between PHW, PHE, NRW and PHW/PHE/FRS
- Nature and scale of incident will determine response level
- Multi-agency and collaborative response often required
- Collaborative working agreements in place

# Incident Notification Form

## Part 1, Annex 1

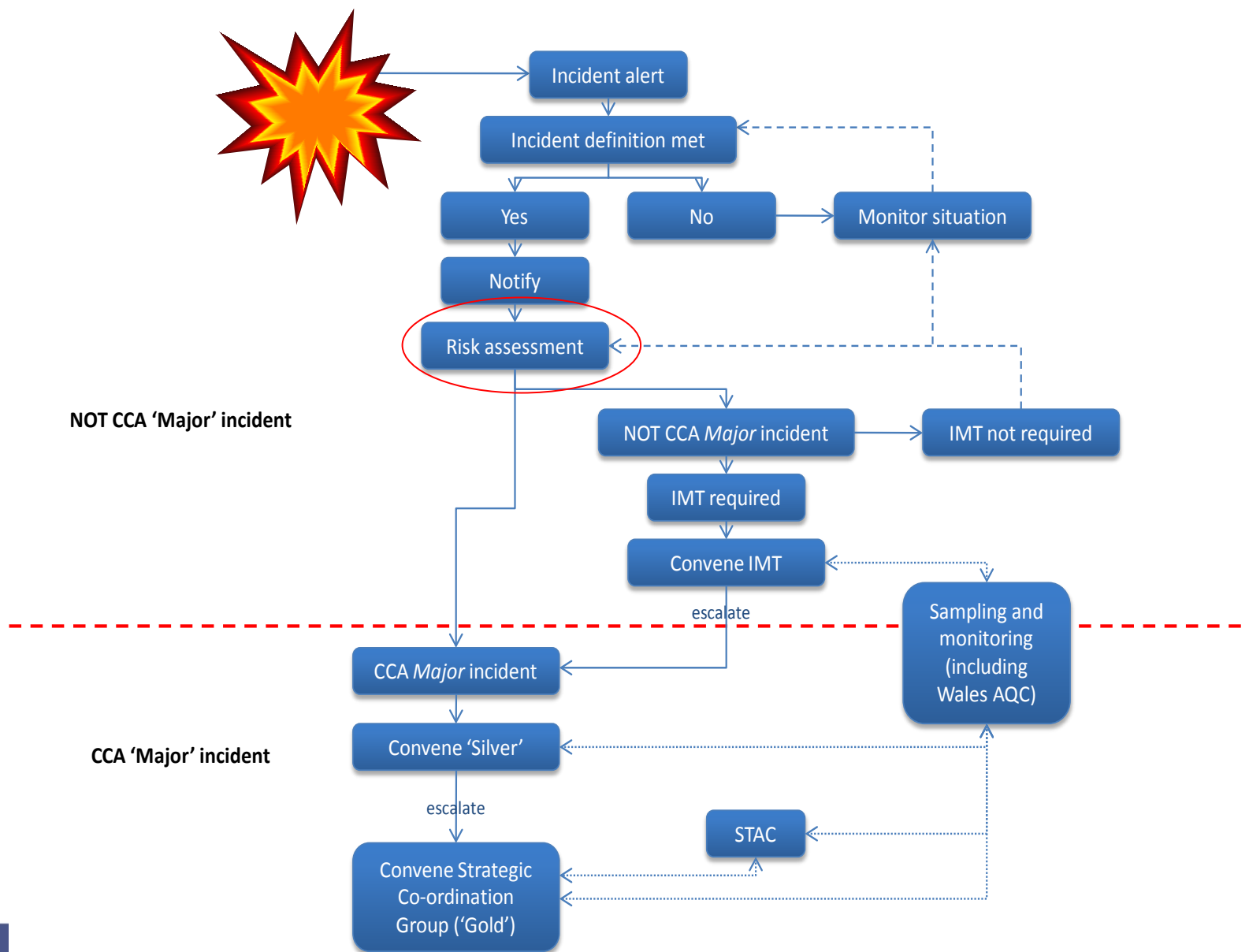
Incident notification form (to be sent to [publichealth.environment@wales.nhs.uk](mailto:publichealth.environment@wales.nhs.uk))

Notification Details	
Date:	
Time:	
Name:	
Organisation:	
Telephone number:	
Email:	
Incident Details	
Date of Incident:	
Time of Incident:	
Location of Incident:	
Description of incident:	
Agencies involved:	
Hazard: Please specify	
Number of people exposed:	
Number of fatalities:	
Number of people reporting symptoms: (Please provide details of affected individuals overleaf)	
Describe reported symptoms:	
Number of people seeking medical attention:	
Other information:	

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Details of affected individuals (if known)	
Name:	
Date of Birth:	
Address:	
Postcode:	
Contact telephone number:	
Gender:	
GP Details:	
Reported symptoms: including onset	
Test results:	
Hospital attended or GP consulted?	
Please specify	

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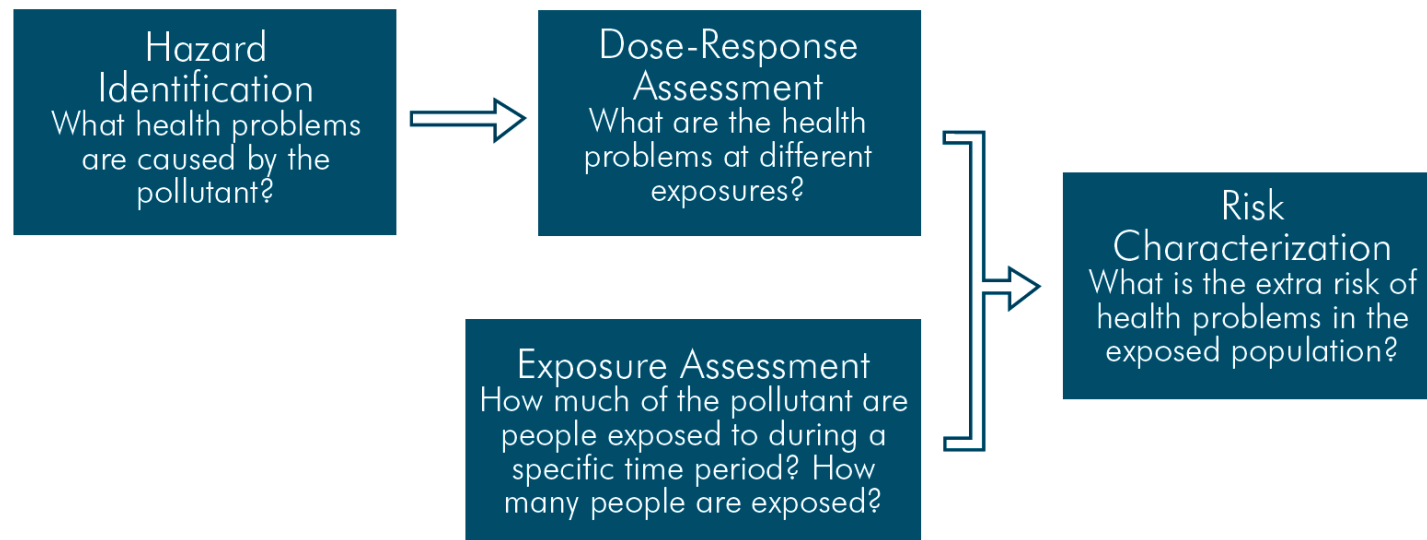
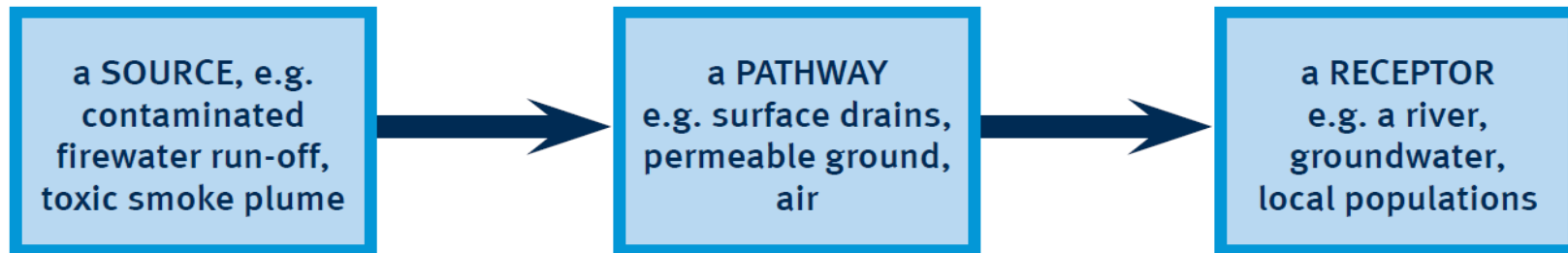


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# Risk assessment



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# Risk Assessment pro forma

## Part 1, Annex 2

### Risk assessment proforma template

This ~~proforma~~ can be used as a means of documenting the risk assessment for an environmental incident (with public health impacts)

Log of incident started by: ----- Date: ----- Time: -----

RISK ASSESSMENT	NOTES
Incident description/characteristics e.g. fire, spill, plume etc.	
Hazard(s)	
Name of substances	
Size of release	
The affected geographical area	
Vector or pathway of contamination Air/ water/land/ food	
Number of people:	
Affected Dead Taken to hospital	
Risk to population	Direct contact Y/N Explosion Y/N Toxic Y/N
Immediate health effects (if necessary use expert help to confirm possible consequences)	1..... 2..... 3.....
Has any organisation declared a major incident?	CURRENT ASSESSMENT Yes Name of org: ----- No Name of org: -----

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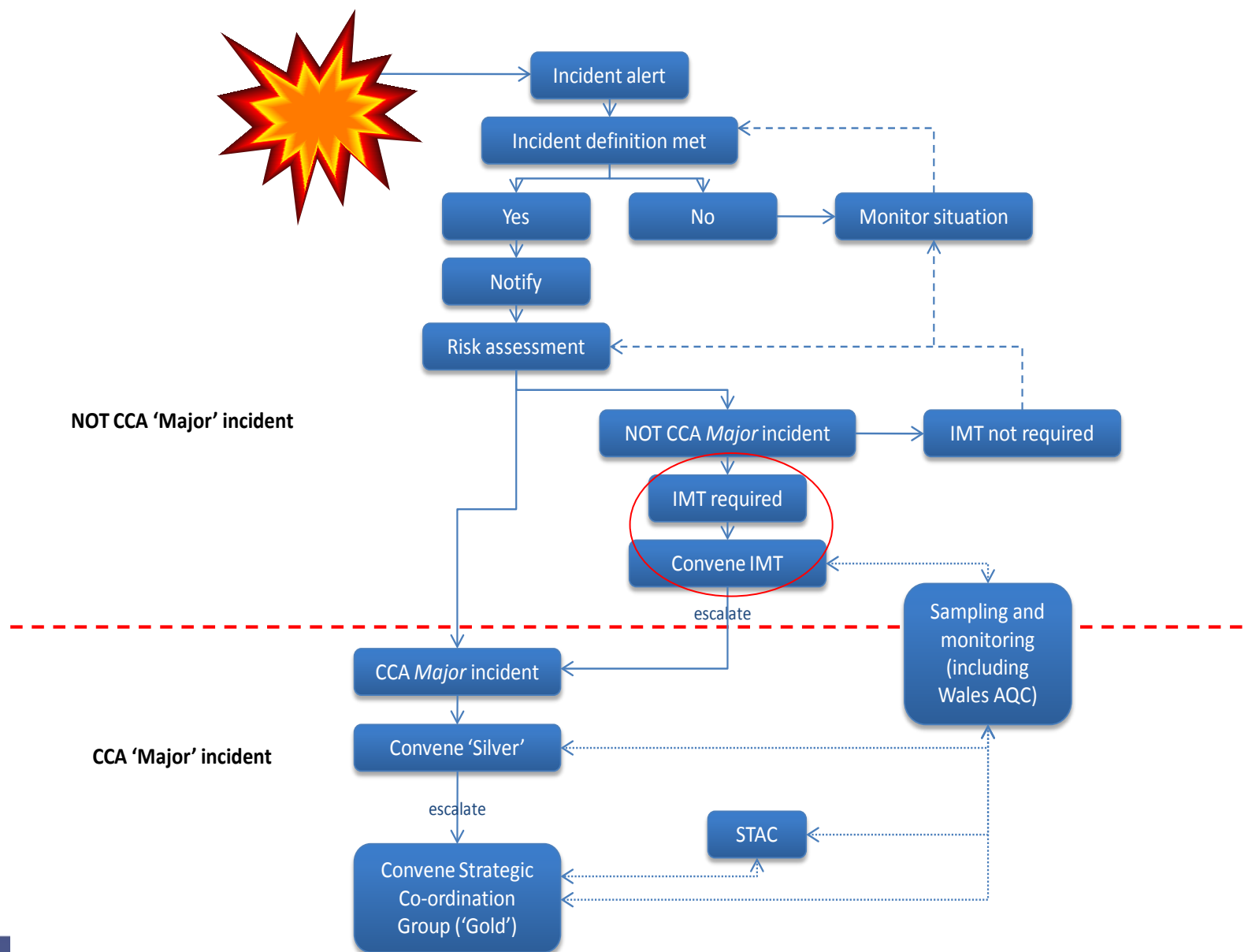
No off-site risk	No incident
Low off-site risk	Advice only - minor Incident
Medium risk	Advice + further actions - minor incident
High risk	Major incident
3. DECLARATION OF SCALE OF INCIDENT	NOTES
At this stage the incident is:- a minor incident / a major incident	
Further Actions	
Activate incident and emergency response plan	
Notify the Communication manager	

*Now carry out an initial risk assessment in order to decide on the size of the required public health response. If possible do this with colleagues.*

You will need to repeat this assessment as necessary.

Timeframe to be determined by IMT members.

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# Incident Management Team IMT

IMT convened if

- immediate and / or continuing health hazard
- one or more routes of exposure
- at – risk population

# IMT Core members

- LA EHP
- PHW representative
- PHE CRCE (Centre for Radiation, Chemical and Environmental Hazards - Wales)
- Health Board Executive Director of Public Health or representative.
- NRW Duty Officer

# IMT

- Roles and responsibilities described
- Ongoing Risk Assessment
- Use of AQC
- Media messages
- Debrief

# Template Agenda for IMT Meeting

**Title: Date, time and venue**

1. Introductions
2. Apologies
3. Minutes of previous meeting (for subsequent meetings)
4. Purpose of meeting
  - At first meeting agree chair
  - Terms of Reference
5. Incident description/update
  - Health and environment impacts
  - Environmental and/or biological sampling data
6. Current Risk Assessment
7. Control Measures
8. Further investigations
  - Environmental and biological
  - Epidemiological
9. Communications (Public/ Media / Healthcare providers (e.g. GPs, A&E etc) / Others Agreed Actions
10. Any other business
11. Next Meeting



# Part 2 Guides

- Air
- Land
- Controlled Waters
- Drinking water

# Risk assessment checklist (s), questions & considerations

## Short-term (first few hours)

- Hazard identification
- Dose response assessment
- Exposure assessment
- Risk characterisation

## Medium-term (after first few hours through to first few days)

- General public health
- Incident site issues
- Health outcomes
- Hazardous substance properties
- Population management
- Other (e.g. is computational modelling available?)

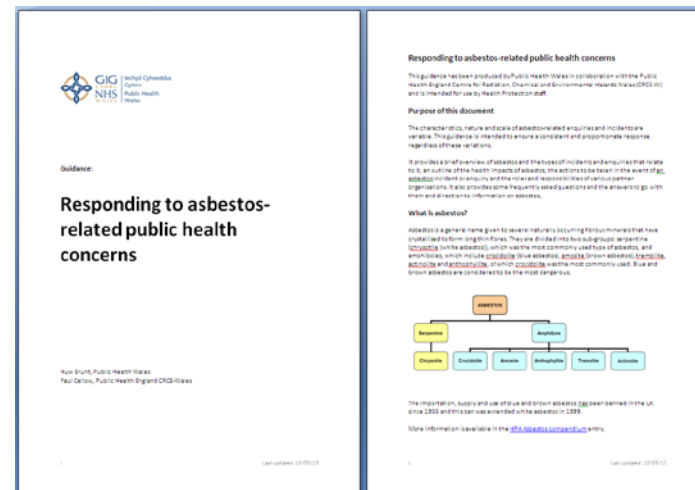
# Risk assessment checklist (s), questions & considerations

## Longer-term considerations (after first few days through to weeks, months or even years)

- General public health e.g. Any long term health consequences of exposure,
- Incident site issues
- Learning e.g. What other measures can be put in place to prevent/reduce the impact of such incidents in the future?

- **Communications**

- **Resources Available e.g.**



# On going work

- Monitoring capability WRPT LRFs
- When and where to monitor (AQC)
- Evacuation / shelter
- COMAH and risk planning
- Incident debriefs
- Your feedback...



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# END

[publichealth.environment@wales.nhs.uk](mailto:publichealth.environment@wales.nhs.uk)

**Kristian James**

**Prif Arbenigwr Iechyd Cyhoeddus Amgylcheddol**

**Principal Environmental Public Health Specialist**

Iechyd Cyhoeddus Cymru

Public Health Wales

Teml Heddwch ac Iechyd, Parc Cathays, Caerdydd CF10 3NW

Temple of Peace and Health, Cathays Park, Cardiff, CF10 3NW

llinell uniongyrchol/direct line: 029 2040 2517

Mobile: 07580 870 528

WHTN 0 1809 5517

derbynfa/reception: 029 2040 2508

Ffacs/Fax: 029 2040 2503

ebost: [Kristian.James@wales.nhs.uk](mailto:Kristian.James@wales.nhs.uk)

Rhyngrwyd/Internet: [www.iechydcyhoedduscymru.wales.nhs.uk](http://www.iechydcyhoedduscymru.wales.nhs.uk) / [www.publichealthwales.org](http://www.publichealthwales.org)

Mewnwrwyd/Intranet: [www.publichealthwales.wales.nhs.uk](http://www.publichealthwales.wales.nhs.uk)

## Managing public health risks from environmental incidents

### Guidance for Wales

March 2014



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# Risk assessment steps

## ***Hazard identification***

To identify the hazardous substance(s) and the adverse health effects associated with exposure.

To characterise the quality and strength of the evidence supporting this identification. This process reflects the inherent toxicology of the substance(s) in question without predicting the likelihood of an effect.

## ***Dose response assessment***

To document the relationship between exposure or dose and toxic effect, to reflect the nature and severity of the hazard.

## ***Exposure assessment***

To calculate a numerical estimate of exposure or dose relevant for the exposure scenario in question.

To define the population actually or potentially affected (much like developing a case definition in communicable disease scenarios), along with exposures within different population groups, particularly susceptible or vulnerable groups. To define exposure pathways.

## ***Risk characterisation***

To summarise and integrate information from the preceding steps in the risk assessment to synthesise an overall conclusion about risk.

To compare with relevant health-based standards, including distinction between the risks of acute and delayed health effects.

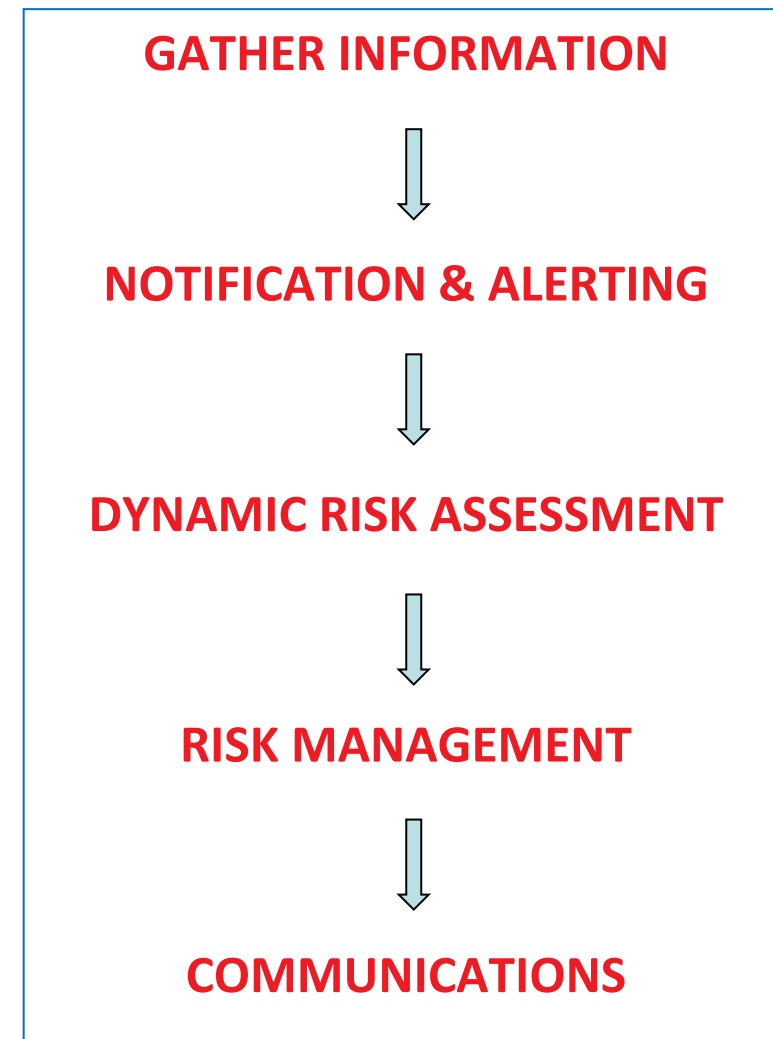


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# PHW role

- Category 1 responder – 24/7/365 service
- Assess exposures and impact on population health
- Multi-agency liaison
- Immediate counter-measure and decontamination advice
- Public health protection/risk mitigation measures
- Interpret and share information with others
- Collate information and advise different audiences
- Contribute to multiagency response structures
- Convene/initially chair STAC (at request of SCG Chair)
- Effective risk communications advice
- Analyse and evaluate response
- Support epidemiological follow-up of affected populations



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# Risk management

## Prevention

- Prevent others being exposed
- Remove source
- Public advice e.g. stay indoors, do not drink water
- Close premises, schools, roads
- Prevent access to affected areas
- Powers to detain/seize/exclude etc.

## Control Measures

- Isolate/remove (likely) source
- Identify at risk population
- Advice
- Decontamination
- Evacuation
- Shelter

## Follow up

- Epidemiological follow-up

# Risk communication

## Inter-agency communication

- Timely and robust mechanism to notify and alert agencies

## Risk communications

- Before an incident has occurred
- Comms on hazards, scenarios, preparedness measures, protective action to take

## Crisis communications

- During an incident
- Enables agencies to mitigate consequences of incident



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