

APPENDIX J : EXTERNAL INTERFACES PLAN

APPENDIX J : EXAMPLE OF EXTERNAL INTERFACES PLAN

EXTERNAL INTERFACE PLAN FOR CASCADE OF DAMS ON RIVER RHUN (SOUTH BRANCH)

Preface

This example plan, although based on a real cascade, has been edited in respect of the names and key features of the dam and downstream valley to preserve the anonymity of the dams

Change log for plan

Rev	Date	Details of nature of change	By	Ckd	Approved		Accepted by EA
					Owner	Panel AR ¹	
A01.01	17/06/2005	Issued to Environment Agency for examination and acceptance	FJBS	AJB	EHG	JDG	Na
A01.02	15/08/2005	Accepted by Environment Agency	-	-	-	-	ABC
A1.03	2/8/2006	Update contacts	RTS	SEG	Na	Na	Na

Notes

1. Documented in signed off separate statement by Qualified Civil Engineer

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1 OBJECTIVES, SCOPE AND ADMINISTRATION OF PLAN

1.1 Objectives

This plan forms part of the risk management of the reservoirs listed in Table 2, defining communication links and contact with the relevant Category 1 responders in the Local Resilience Forum.

1.2 Scope

The reservoirs on the cascade on River Rhun (South) are summarised in Table 1, with this plan covering those reservoirs owned by Krypton plc.

There is a separate reservoir on a downstream tributary of the River Rhun, termed River Rhun (West), also owned by Krypton plc. However this is covered by a separate on-site plan, as failure of the dams on one tributary would not affect the safety of the dam(s) on the other tributary

1.3 Administration of the plan

The status of this document is as shown in the document history record on the cover and it is issued to those shown in Table 2. The electronic copy of the plan is password protected, with the password issued by the Reservoir Safety Manager.

In addition it is available on the company intranet, with password protected access (password given to Duty Managers and Supervising Engineers).

Table 1 : Reservoirs and dams in cascade

Reservoir		Dams			
Name	Capacity m ³	No	Names	Grid Ref ¹	Reservoir that would receive breach
Covered by this plan					
Bravo	440,000	1	Bravo	(AA) 1234 5678	Delta
Charlie	250,000	1	Charlie	(AA) 1234 5678	Delta
Delta	410,000	1	Delta	(AA) 1234 5678	Echo
Echo	1,300,000	1	Echo	(AA) 1234 5678	None
In cascade, but not covered by this plan					
Alpha	75,000	1	Alpha		Bravo

1. Shown on Landranger (1:50,000 scale) Map No xxx and Explorer (1:25,000 scale) Map No xxx

Table 2 : Distribution list for copies of this document and personnel who would be involved in managing external interfaces in any emergency

Position	Name	Postal Address	Phone		
			Office	Home/ out of hours	Mobile
Internal – Water Company					
Reservoir Safety Manager	xxxxx	xxxxx	xxxx	xxxx	xxxx
Emergency Planning Officer	xxxxx	xxxxx	xxxx	xxxx	xxxx
Supervising Engineer (s)	xxxxx	xxxxx	xxxx	xxxx	xxxx
Operations Manager	xxxxx	xxxxx	xxxx	xxxx	xxxx
Enforcement Authority					
Environment Agency: a) Technical Manager- Reservoir Safety	xxxxx	Reservoir Safety - Technical Manager, The Environment Agency, Manley House, Kestrel Way, Sowton Industrial Estate, Exeter, EX2 7LQ	xxxx	xxxx	Not relevant
b) Regional office.- Operations Manager	xxxxx	xxxxx	xxxx	xxxx	xxxx
Category 1 Responders					
Local authority Emergency Planning Officer	xxxxx	xxxxx	xxxx	xxxx	xxxx
Police Force Incident Room	xxxxx	xxxxx	xxxx	xxxx	xxxx
Police Headquarters	xxxxx	xxxxx	xxxx	xxxx	xxxx
Environment Agency Area office.- Operations Manager	xxxxx	xxxxx	xxxx	xxxx	xxxx

2 NOTIFICATION BY UNDERTAKER OF SERIOUS INCIDENT AT A RESERVOIR

2.1 Information to be provided to Local Resilience Forum

The LRF will be notified once an incident reaches “advisory” level, as defined in Table 4.4 of the Engineering Guide. The information that would be transmitted to the LRF is given in Attachment A, in the form of a blank form to be completed with details of the incident (the Form is already completed in respect of the agreed recipient, the Duty officer at the local police headquarters).

This includes a list of available documentation relevant to assessing the magnitude of the:

- risk to the public, and
- practicable measures to reduce that risk

2.2 Available relevant documents

These are given in Attachment A.9.

3 MANAGEMENT OF SERIOUS INCIDENT BY UNDERTAKER

3.1 Undertaker’s procedures and authorised personnel

Most of the necessary information is given in the On-site Plan, the whole of which will be copied with the Notification of a serious incident.

3.2 Communication

All contacts will be directed to, and dealt with, by the Krypton plc Duty Press Officer. He will liaise with the LRF media representative.

3.3 Undertaker’s Resources relevant to off-site activities

The Undertaker will provide a minimum of one competent person at the Local Resilience Forum Control Room, during the incident. This will be determined by the Duty Manager, and would generally be a reservoir panel engineer and someone from operations. Their role would be to assist with interpretation of plans and data, to represent the Undertaker and, if necessary, make decisions on behalf of the Undertaker.

The Undertaker has no staff based permanently at the dams.

There are however, the following resources which could provide assistance

- a) Plant Engineers based in the area, looking after this cascade of dam
- b) Framework contracts with three contractors, for the supply of labour and materials

4 MAINTENANCE OF THE PLAN

4.1 Training of staff

The Reservoir Safety Manager, or other Krypton plc nominee, shall maintain a list of individuals who would be involved in implementing this plan, together with the training which those individuals have received. As well as the seminar below it should list any other training relevant to the management of emergencies.

A company wide one day seminar or workshop shall be held at least at the frequency shown in Table 3 where the various elements of interfaces with the off-site elements of emergency planning for dams are discussed. Attendees shall include, as a minimum, the following

- Krypton plc Reservoir Safety manager
- Krypton plc Emergency Planning Officer
- At least one of the Duty Managers
- Supervising Engineers (at least one from the reservoirs covered by this plan)
- Headworks Operators (at least one from the reservoirs covered by this plan)
- At least one Inspecting Engineer used by Krypton
- Invited representative of the Local Resilience Forum

This seminar would normally cover both

- a) generic planning for all dams owned by Krypton plc, and
- b) the flood plan for one of the cascades of dams owned by Krypton plc (not necessarily those covered by this plan).

4.2 Exercising of External Interface plan

Exercising shall be carried out as shown in Table 3.

Table 3: Frequency of exercising of external interface plan for this group of reservoirs

	Exercise	Frequency	Application
-	Contact verification	Quarterly	Every reservoir
O1	Call-out simulation	Annual	One reservoir in this group
T	Seminar	Annual	One member of staff from this group
O2	Tabletop	Included as part of seminar	
O3	Operations Post/ Control Room	Not required, as already covered through real incidents in other areas of the companies operations (non reservoirs)	

Notes

1. Details of exercise defined in Section 4.1 of this plan; otherwise as described in Guide to Emergency planning
2. The company will hold one of these exercise annually, but this group need only attend every two years

Every exercise should include a formal debriefing and lessons learnt report, with changes to this plan where appropriate, as part of a continuous improvement culture.

4.3 Review and updating of plan

The list of contacts in Attachment A should be checked annually, with a checklist of dates and times phone numbers were checked.

This plan should be reviewed (and updated or modified as appropriate)

- following every exercise of this plan
- annually by the Supervising Engineer
- on a reservoir by reservoir basis, as part of a periodic Section 10 Inspection

ATTACHMENT A: FORM FOR NOTIFICATION OF SERIOUS INCIDENT
(Boxes with double line border are only to be completed when used for real incident; these are completed here only to illustrate what the completed form might look like)

A.1 History of revisions of notification associated with this incident

Issue Number	Date	Time (24 hours)	Reason for issue	Issued by
01	2 nd Feb	1630	First Issue	A Smith
02	3 rd Feb	1000	Update probability of failure and estimated time of failure	A Green

A.2 Issued by

Name	A Smith
Date	2 nd Feb 2005
Time (24 hour clock)	1630
Position/ Authority	Operations Manager, Krypton plc
Contact Phone	xxxx-xxxxx
Signature	A Smith

A.3 Issued to:

Agreed recipient	Check and amend as necessary at time of issue
Position	Duty Officer
Fax/ email	xxxx-xxxxx
Telephone (to check receipt)	xxxx-xxxxx
Mobile phone (alternative to above)	xxxx-xxxxx
Location	County Headquarters
Organisation	Carbon Constabulary
Phone to check receipt (Individual spoken to)	
Name	A police officer
Position	Duty officer
Rank	Sergeant
Time	1635

A.4 Details of Incident:

	Information	Remarks
Dam name (or dams) at which incident is occurring	Delta	
Grid Reference (7 digit)	XXX XXX	
Nature of incident (delete as appropriate)	Failed/ Imminent failure/ Increased risk of failure	
Failure mode	Internal erosion – leak along culvert	
Probability that will fail	Low/ Medium/ High	
Likely time to failure from issue of notice	< 6 hours, < 12 hours, < 24 hours, > 24 hours,	

A.5 Action being taken on site by Undertaker

1. All outlets fully opened at Delta
2. Maximum diversion into WTW from Delta
3. Upstream reservoirs
 - Stop releases from Bravo (14 day's storage available)
 - Send indirect catchment into Charlie
 - Stop releases from Charlie(30 day's storage available)
4. Downstream reservoir (Echo)
 - Full opening of bottom outlet to provide storage to absorb flood wave from Delta dam
5. Bringing pumps to head of Delta reservoir, to pump from Delta into Bywash channel (and to send around Echo in its bywash)
6. Any further pumps will pump from Delta into spillway channel

A.6 Request for assistance with on-site activities from Category 1 responders

Actions

1. Close public road from Rhun village up to reservoirs (only serves one house) and turn anglers car park into depot (NB No mobile phone reception there)

Equipment, materials

	Description	Use	Delivery Location	Contact for spec/delivery
1	Any additional pumps	To pump into bywash channel around Delta reservoir	Top of Delta reservoir	A Smith Tel Xxxxx xxxxxx
2				
3				
4				

A.7 Details of Local Control

Authorised personnel in charge on site

Name	<i>A Other</i>
Position	<i>Tier 2 manager</i>
Mobile phone	<i>xxxxx-xxxxxxx</i>
Landline at site	<i>None</i>
Organisation	<i>Krypton plc</i>

Location and contact for Local Incident Control Room

<i>Physical location</i>		<i>Phones</i>
<i>Description</i>	<i>(OS Grid Ref)</i>	
<i>Edoras Water Treatment works</i>	<i>AA (12) xxxx xxxx</i>	<i>Land line Xxxx xxxxx Satellite xxxxx xxxxx Mobile xxx xxxxx</i>

A.8 Details of authorised personnel in Undertaker's Control room/ head office
 (supplementary to those in Event Management Plan)

Position	Name	Postal address of base office	Phone (working hours)	Home phone number	Mobile/ 24hour contact
Reservoir Safety Manager	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXX	XXXX-XXXXXX
Emergency Planning Officer	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX
Press Officer	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX
Insurance Manager	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX
Operations (Duty) Manager	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX
Supervising Engineer	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX
For reservoirs covered by plan	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX
Alternatives, if above not available	XXXXX	XXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX	XXXX-XXXXXXX

A.9 Undertaker's documents which may assist Category 1 responders

Type	Title	Plan		Latest Revision		Remarks	Attached to (e-mailed with) this Notification?
		Originator	Owned by	Rev No	date		
Inundation analysis and consequence assessment	River Rhun (South Branch)	Consultant 1	Krypton plc	02	1999		Yes
On-site plan	Dams on River Rhun (South Branch) owned by Krypton plc	Krypton plc	Krypton plc	01			Yes
Method statement for routine releases	Dams on River Rhun (South Branch) owned by Krypton plc	Krypton plc	Krypton plc	02	2005		No
Interface with off-site organisations	Dams on River Rhun (South Branch) owned by Krypton plc	Krypton plc	Krypton plc	02	1999		Yes

A.10 Documents available from others which may assist Category 1 responders

Type	Title	Plan		Latest Revision		Remarks	Attached to (emailed with) this Notification?
		Originator	Owned by	Rev No	Date		
On-site plan	Alpha lake	Consultant 2	Mineral angling society	01	2001	Another Reservoir in this cascade	No
Method statement for routine releases	Alpha lake	Consultant 2	Mineral angling society	01	2001	Another Reservoir in this cascade	No
Interface with off-site organisations	Alpha lake	Consultant 2	Mineral angling society	01	2001	Another Reservoir in this cascade	No

ATTACHMENT B : MAINTENANCE LOG

B.1 Exercising since plan issued

Details of entry		Details of exercise			Details of debriefing/ lessons learnt			Actions taken/ remarks
Date	Name	Date	Level (as Table 4.14 of Guide)	Lead individual	Date	Lead individual	Location of report	

B.2 Contact verification and callout simulation

Details of entry		Details of verification				Result of call	Any Actions taken/ remarks
Date	Name	Date	Time	Type	Lead individual		

APPENDIX K : STATEMENT BY QUALIFIED CIVIL ENGINEER

APPENDIX K : EXAMPLE OF STATEMENT BY QUALIFIED CIVIL ENGINEER

Statement by Engineer as to contents of Flood Plan

I (a) of (b), being a member of the (c), appointed by (d) to review the various flood plan elements as detailed below in Table 1, have reviewed the plans and accordingly I am satisfied they follow the requirements of the Direction under the Water Act 2003 as to the contents of a Flood Plan. My recommendations as to the date of the next review are given in Table 1.

.....
 Signature Date of statement

.....
 Date of expiry of appointment to Panel

Table 1: Reservoirs and dams covered by statement

Name of reservoir	<i>(e)</i>	<i>Beta</i>	<i>Gamma</i>	<i>Delta</i>
Grid reference	<i>(f)</i>	<i>(AA) 1234 5678</i>	<i>(AA) 1234 5678</i>	<i>(AA) 1234 5678</i>
Downstream reservoirs at risk in event of breach of dam (domino effect)				
Name of reservoirs	<i>(e)</i>	<i>Gamma, Delta</i>	<i>Delta</i>	<i>None</i>
Grid reference	<i>(f)</i>	<i>(AA) 1234 5678, (AA) 1234 5678</i>	<i>(AA) 1234 5678</i>	<i>Not app</i>
Areas that could receive breach				
<i>River Kappa</i>	<i>(t)</i>	<i>Yes</i>	<i>Yes</i>	<i>No</i>
<i>River Anduin</i>	<i>(t)</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
<i>River Aries</i>	<i>(t)</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
For those elements of Flood Plan which I have reviewed, date for next review				
Impact assessment	<i>(u)</i>	<i>5th March 2014</i>	<i>5th March 2014</i>	<i>5th March 2014</i>
On-site plan	<i>(u)</i>	<i>5th March 2014</i>	<i>5th March 2014</i>	<i>5th March 2014</i>
Plan for external Interfaces	<i>(u)</i>	<i>5th March 2014</i>	<i>5th March 2014</i>	<i>5th March 2014</i>

Notes

Italicised letters as defined in Statutory Instrument 1986 No 468 Regulation 3, supplemented as follows:

- (t) detail of areas that would be inundated, subdivided as appropriate and with sufficient detail to identify each area e.g. name of watercourse
- (u) For those elements covered by this statement give the latest date that the next review should be carried out; where that element was not reviewed enter “not reviewed”