

## Kyiv and Chernobyl Field Trip 28 June - 2 July 2016

### Health and Safety Briefing & Useful Information

18.5.16

A comprehensive risk assessment has been carried out by Victoria Beale (University of York), with advice from the University's Health and Safety Team and also from Dr Ian Haslam, Head of Radiation Safety Unit at the University of Manchester and a participant on this trip. A copy of the risk assessment is available to all participants.

#### **RADIATION**

On page 4 there is some detailed information about the levels of, and risk of exposure to, harmful radiation. In summary, because we will be spending a short time in the Zone (c. 36 hours), avoiding radiation hotspots, and taking sensible precautions, the contribution from Chernobyl radiation should not raise our annual radiation exposure to significantly beyond the upper average UK exposure. Ian Haslam will carry a professional dosimeter and measuring radiation levels everywhere the group goes.

**Protective Clothing.** In general, protective clothing is not necessary. However, in the unlikely event of a particularly dusty day, it is best to wear a coverall and dust mask. David Moon will bring coveralls for all. **Please use the size guide on page 5 to work out and tell us what size would fit you best.** Dust masks have to be fitted to the individual to be effective. **We STRONGLY advise you to buy a suitable dust mask and get it fitted.** Your university Health & Safety team should be able to help. The cost can be claimed from the grant (please keep receipts). There are more details on dust masks on page 5.

**To reduce the risks of exposure to harmful radiation we ask that you follow this advice:**

#### **Within the Zone**

- Stay on the paths
- Don't touch the soil or vegetation
- Keep in sight of the local guide and follow all his/her instructions.
- Do not consume any food/drink outside.
- Only consume food/drinks brought from outside of the Zone (and only indoors)
- Do not smoke
- Wear clothing that only leaves hands and heads uncovered (long trousers, long sleeves and closed footwear).
- Hold or carry your camera at all times - do not rest it on the ground.
- If you use a tripod, use plastic covers on the feet and dispose of them before leaving the zone
- Do not touch anything by hand or take anything out of the zone

**On leaving the Zone and arriving at the Desyatka hotel, Chernobyl, on the evening of 30<sup>th</sup> June:**

- Shower and put on clean clothes.
- Keep all clothes worn while visiting the Zone separate from other clothing (eg sealed in a plastic bag) until they can be washed. Alternatively, clothing can be disposed of at the hotel.

If you wish, Ian Haslam can use the dosimeter to check radiation levels on your clothes.

## **OTHER HEALTH & SAFETY ADVICE**

### **General health advice**

- Take out comprehensive travel and medical insurance (this is a legal requirement) and carry the emergency contact numbers for these.
- Make sure you have sufficient accessible funds to cover the cost of any medical treatment abroad and repatriation.
- Ensure that your standard recommended vaccinations (including Diphtheria, Hepatitis A, Poliomyelitis and Tetanus) are up to date.

### **Local travel**

- Only use official/reputable taxi companies for transfers. State-owned taxis have yellow and black signs on the roof and are metered.

### **Legal issues**

- Ensure that your passport is valid for the duration of your stay and for 3 months after the date of intended departure from Ukraine, and was issued no more than 10 years ago..
- Carry your passport (not a photocopy) with you at all times.
- Do not carry drugs
- Do not smoke or drink in public places
- Do not export antiques and items of historical interest without official permission
- Do not take photographs near government, military establishments or checkpoints.
- Do not take photographs of certain areas within the Exclusion Zone (these areas will be identified by the local guide)
- There is no legislation prohibiting discrimination towards the LGBT community and intolerant attitudes are often held by the Ukraine public towards this community. Please be aware of the possible discrimination that could occur during the visit from Ukraine citizens. The potential for this to happen is higher than in the UK where legislation exists to prevent this.

### **Crime/Security**

- Take normal, sensible precautions to avoid mugging, bag snatching and pick-pocketing (i.e. not having valuables on display but keeping them in inside pockets or similar)
- Keep your passport and money (divided into more than one stash) separately in inside pockets.
- Avoid any high crime areas (our Ukrainian participants can advise)

### **Political instability / terrorism:**

The situation in Kyiv is generally calm at present (checked 10.5.16), although occasional public demonstrations continue in and around the Verkhovna Rada (parliament building) and elsewhere in the city. Victoria Beale (Network facilitator) will monitor the FCO (UK Foreign and Commonwealth Office) website and other media for information about possible safety or security risks before and during the trip to determine the nature of any safety alerts relating to the area.

- remain vigilant, avoid all demonstrations and take extra care in public gatherings.

In addition to the advice above, we suggest that you also read the UK Government's travel advice at [www.gov.uk/foreign-travel-advice/ukraine](http://www.gov.uk/foreign-travel-advice/ukraine)

David Moon will be contactable on +44 (0) 7778 469252.

David Moon will carry a first aid kit and has completed an emergency first aid course

## OTHER PRACTICAL INFORMATION

**Language** - Ukrainian speakers will be on hand.

**The Staro Hotel, Kyiv** has many facilities including Air conditioning, Free WiFi, 24-hour front desk, Luggage storage, ATM/cash machine on site, Laundry, Fax/photocopying, Safety deposit box.

Address: Staro Hotel, Konstanyiv'ska Street 34-b, Kiev, 04071, Ukraine.

Phone: +380 44 481 3300

Website: <http://hotel-rn.com/hw/a413154/index.htm?l=gg>

**The Desyatka Hotel, Chernobyl** has free wifi, a café and a gift shop. Towels, soap and shampoo are provided and each room has a television.

address: Bohdana Chmelnytskogo str., 1a, Chernobyl, Kyiv region

Phone: +38 (067) 445-62-96 or +38 (067) 328-80-18

Website: <http://www.rektan1.com/#!hotel/c1wf9>

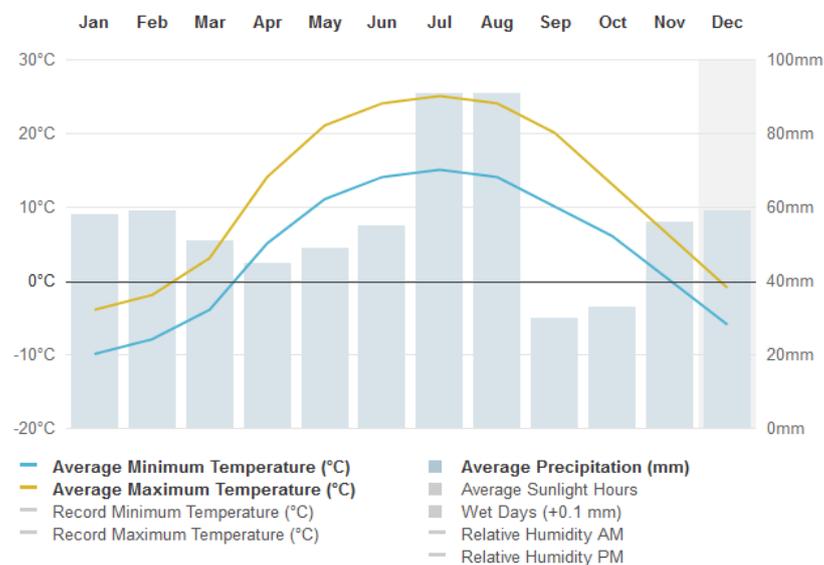
**Airport Facilities.** Kiev's Borjspol International airport is approximately 38km from the centre of the city, about a one-hour journey by road. It has the facilities expected of any large international airport, including a bureaux de change, banking facilities, shopping and restaurants. Taxi is the best means of reaching the city centre; please note that you should ask the taxi driver to help load your luggage into the car, as there have been reports of taxis driving off with people's luggage.

**Money.** The currency in Ukraine is the hryvnia (UAH), which is divided into 100 kopyok. Ukrainian hryvnia are difficult to acquire before entering the country. US dollars, Euros and Russian rubles are the easiest currencies to exchange. Sterling may also be exchanged at a more limited number of sites. Use only official exchange booths. You will need to present your passport to exchange money. You should be given a receipt (NBU form № 377). Keep the receipt as you may need to produce it if you exchange money back on departure. Traveller's cheques are not widely accepted.

### Weather in Ukraine.

In summer daytime temperatures reach 25-30°C, but sometimes quite higher, 35°C or more, especially in the inland areas. The summer months enjoy dry weather with sunny spells most of the time, rain often falls with sometimes heavy Thunderstorms, but mostly along the coastal areas of the Black Sea. These Thunderstorms often occur at the end of the day. July is the warmest month with an average Temperature of 24°C. Annual Precipitation is about 400-600 mm, but lower in the inland areas of the Ukraine.

### Average Conditions



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## **THE RISK OF EXPOSURE TO HARMFUL RADIATION IN THE CHERNOBYL EXCLUSION ZONE**

(information prepared by Dr Ian Haslam, Head of Radiation Safety Unit at the University of Manchester)

The average background radiation exposure in the UK is 2 milliSieverts a year (range across UK 1-6ms/year). Health risks would only begin to be observed at levels over 500 times greater than this, and then only when the dose is instantaneous, i.e. all delivered 'in an instant' rather than being received over a period of hours or weeks.

It is difficult to state what the background external irradiation dose rate is within the exclusion zone as this will vary greatly according to distance from the plant, location, micro-location and weather. It is, however, reasonable to assume that the average background dose rate will be some 10 to 100 times that elsewhere in the Ukraine, with high hot spots.

The dose rate needs to be weighed against the time spent on tour and the ability to avoid certain areas, which should be known to the guides. By taking sensible precautions and following local advice it is reasonable to assume that the contribution from Chernobyl will not raise a visitor's annual exposure significantly beyond the upper average UK exposure.

It is also worth noting that for solid cancers the cancer rate is estimated to increase by around 0.3-1.5 % per 1000 milliSieverts, and therefore the enhanced risk from visiting the exclusion zone whilst taking heed of instruction will be negligible.

The greatest risk of radiation exposure is from the intake of contaminated dusts by inhalation, and this will be dependent upon dust levels on the days of the visit. July is one of the months with higher than average rainfall so we hope that there will not be much dust. We will take dust masks and disposable coveralls in case of a particularly dusty day.

It is unlikely that contaminated dusts will be resuspended into the atmosphere in areas covered by continual ground cover. Contamination will by now be mostly incorporated into humus and topsoil horizons, and there are no agricultural practices carried out that might lead to resuspension.

## DUST MASKS

Dust masks should be tried on for a correct fit before the trip. It may not be necessary to wear the masks for most places within the exclusion zone depending on the weather conditions. They are more useful for the inside of buildings that are not open to the elements where dust has accumulated eg the hospital basement.

The dust mask should be marked CE and EN 149: 2001 to show that the design has been tested to a recognised standard. Additional markings, such as FFP1, FFP2 or FFP3, indicate the protection level that you can get if the respirator is a good fit and you use it correctly. The higher the number, the better the protection. FFP1, FFP2 and FFP3 respirators can reduce the amount of dust you breathe by factors of 4, 10 and 20 respectively.

Manufacturers must provide written information with each box or pack that includes details such as the safe use of respirators and their limitations. They may also give details of how to fit them correctly and check for a good fit. You may not get this information if you buy a single respirator from a larger pack. When you buy disposable respirators this way for use at work, make a point of asking for a copy of the manufacturer's technical information.

### If it leaks it doesn't protect

Even if you have this information, finding a suitable respirator is not simply a matter of choosing a model you like the look of, or the cheapest. Not all faces are the same and neither are disposable respirators. You might need to try different makes or sizes to find one that fits without leaking around the seal and letting dust in. **A respirator that depends on face fit is useless if you have a beard or thick beard stubble.** The only way you can know if the seal is good enough is by having a proper respirator fit test. At present this is also the only way of meeting legal requirements. The respirator manufacturer's helpline, testing companies and reputable suppliers will be able to advise you.

You should carry out a pre-use check every time you put on your respirator. Always check that it is fitted according to the manufacturer's instructions, eg ensure that the straps and strip for moulding the respirator around your nose are correctly adjusted, then hold the mask in place and breathe in or out sharply. You should readjust the respirator if you detect any leakage around your face or your glasses steam up when you breathe out.

## COVERALL SIZE GUIDE

### Body measurements

Body height (cm)



Chest girth (cm)	Size	162 170	168 176	174 182	180 188	186 194	192 200
	84 - 92	<b>S</b>					
92 - 100			<b>M</b>				
100 - 108				<b>L</b>			
108 - 116					<b>XL</b>		
116 - 124						<b>XXL</b>	
124 - 132							<b>XXXL</b>

