Northern Ireland
Fire & Rescue Service

STANDARD OPERATING PROCEDURE NO 22

Large Animal Rescues

Version Number:	4
Version Date:	14 January 2022
Issued by:	Resilience Department

INDEX

Page

VERSION CONTROL

This document and subsequent amendments will be issued by the Emergency Response Department, Northern Ireland Fire & Rescue Service (NIFRS) Headquarters.

Amendments are detailed as below:

No	Issued	Amendment	Prepared by	Approved by
1	21/06/2006	Initial issue of Standard Operating Procedure (SOP)	Group Commander (GC) Synnott (Operations Policy Unit)	GC Synnott
2	22/08/2014	Review of SOP - consultation	Project Team	Assistant Chief Fire Officer (ACO) Ashford
3	19/11/2014	Issue of SOP following approval	Project Team	ACO Ashford
4	14/01/2022	**Section 1.2** (Pre-Determined Attendance (PDA)) – Update to PDA for Incident Type *Animals in Slurry*	Resilience Department	GC (Resilience)

1 INTRODUCTION

1.1 Scope

This SOP has been developed to contribute to a safe system of work for attendance at large animal rescue incidents.

1.2 Pre-determined Attendance (PDA)

Incident Type	PDA
Animal Rescue Level 1 (AR1) (Local crews and a Farm Animal Handling Awareness (FAHA) trained Flexible Duty System (FDS) Officer for initial assessment)	▪ Nearest FDS Officer. If nearest FDS Officer is not a FAHA trained officer, a FAHA trained FDS Officer will be mobilised in addition to the nearest FDS Officer. ▪ 1 Pump.
Animal Rescue Level 2 (AR2) (Animal Rescue Team)	▪ On request from the incident ground. ▪ The nearest available crew of 4 from an Animal Rescue Level 2 (ART2) station (currently Omagh and Newcastle) will attend in a 4-wheel-drive vehicle, and they will supplement the initial attendance.
Animals in Slurry	▪ 2 Pumps (9 personnel), one of which must have a gas monitor; ▪ 1 AR2 Team; ▪ RT190 and Level 2 Specialist Rescue Team (SRT); ▪ Nearest FDS Officer as Incident Commander; ▪ 1 Hazmat Officer; ▪ 1FAHA who will perform the role of Safety – in the event of there being no FAHA on duty, nearest FDS Officer as Safety Officer; ▪ Fire Emergency Support Service Vehicle.

2 SIGNIFICANT HAZARDS AND CONTROL MEASURES

Significant Hazards	Control Measures
Approaching the rescue site ▪ Difficult access/remote terrain/ ditches/holes/cattle grids/ overhead branches; ▪ Underground hazards (cesspits, drains, wells, tanks, mines, tunnels, power lines, pipelines); ▪ Darkness; ▪ Manual handling of equipment; ▪ Cuts and abrasions from thorns/barbs/overhead obstructions; ▪ Confined space working; ▪ Risk of rapid fatigue; ▪ Claustrophobia; ▪ Stress to rescuer.	▪ Full Personal Protective Equipment (PPE) (including structural firefighting gloves). ▪ Adequate lighting. ▪ Appoint and fully brief a Safety Officer. ▪ Adequate supervision. ▪ No self-deployment. ▪ Regular relief for personnel carrying equipment. ▪ First-Aid kit available. ▪ Obtain information from farmer about location of animal(s) and hazards. ▪ Effective communication system in operation. ▪ Incident Command System (ICS) – strict supervision; minimum number of personnel in risk area.
▪ Water (static, tidal, running, frozen); ▪ Unstable ground (recognition of slurry lagoon, bog, mire, ice, grain, linseed, etc) - Contraction of water-borne diseases; - Drowning in extreme situation; - Risk of hypothermia.	▪ Inform all personnel of hazard location. ▪ Minimum number of personnel in risk area. ▪ Suitable PPE that includes water safety equipment, dry suits, etc, where necessary. ▪ Competent supervision. ▪ Establish a Cordon. ▪ Consider using work restraint (Working at Height (WAH) kit). ▪ Wear lifejacket if working within 3 m of water hazard.
▪ Injury due to electric fences	▪ Isolate power. ▪ Only when necessary, place a salvage sheet over the fence before climbing over.

Significant Hazards	Control Measures
▪ Overhead power lines/high voltage electricity	▪ Ensure drivers are aware of location of power lines. ▪ Ensure vehicles can proceed under power lines without colliding. ▪ Stem lights should not be elevated under power lines.
▪ Asphyxiation/drowning in slurry storage - Drowning risk; - Fall from height; - Working in darkness. ▪ Gases **always** present - Hydrogen Sulphide – toxic gas; - Methane – flammable gas.	▪ Ventilate area as soon as possible. ▪ Request a Hazmat Officer. ▪ Cordon off immediate area. ▪ Use of Breathing Apparatus (BA) and gas monitor in hazard area. ▪ Ventilate area as soon as possible. ▪ Recovery system where entry for rescue is required. ▪ Do not break surface crust or agitate slurry where possible. ▪ Personnel should not enter for animal rescue unless donned in BA and properly trained and equipped to do so. ▪ Appoint and fully brief a Safety Officer. ▪ Consider using work restraint (WAH kit). ▪ Identify location of slurry drain outlet if available. ▪ Maintain command and control at all times to prevent unauthorised access. ▪ Utilise the SRT to assist in rescue operations and/or for Firefighter safety. ▪ Determine depth of the slurry and the slurry pit from a responsible person. ▪ No ignition sources – only use intrinsically safe equipment. ▪ In liaison with a Hazmat Officer, create a Decontamination Zone. Employ strict command and control of decontamination operations.

Significant Hazards	Control Measures
Entrapped animals ▪ Kicked/bitten/trodden on/rolled on/impaled/butted/scratched/ gored/crushed; ▪ Trapped by rolling animal.	▪ Where possible only AR2 trained personnel inside the Inner Cordon (the role of AR2 responders is to carry out rescues). ▪ Full PPE. ▪ Proper egress routes maintained. ▪ Large animal veterinary (vet) surgeon requested. ▪ Work to “safer” working area. ▪ Stay out of head butt and kick zones. ▪ Appoint and fully brief a Safety Officer. ▪ Dynamic identification and management of kick and bite zones where practicable. ▪ Attendance of other emergency services, including Northern Ireland Ambulance Service. ▪ Minimum personnel and noise around the Inner Cordon.
Fire crews trampled/gored/ crushed/butted by other animals in the vicinity due to ▪ Crowding from the remaining herd; ▪ Animals with enhanced emotion, size and weight; ▪ Male species, ie, bulls, boars, rams, stags, stallions; ▪ Females protecting young.	▪ Where possible only AR2 trained personnel near animals. ▪ Full PPE. ▪ Proper egress routes maintained. ▪ Large animal vet requested. ▪ Stay out of head butt and kick zones. ▪ Appoint and fully brief a Safety Officer. ▪ Minimum personnel and noise around the animals.

Significant Hazards	Control Measures
At the animal rescue scene ▪ Unstable structures (buildings, pits, shafts, mines, banks etc); ▪ Confined spaces; ▪ Water/unstable surfaces; ▪ Vehicle or equipment movement striking personnel, other animals or overhead electric cables; ▪ Veterinary medicines needles stick injuries; ▪ Hazardous materials - poisons, chemicals, asbestos, gases, asthmagens (substances that cause sensitisation of the airways); ▪ Exposure to extremes of temperature during long duration rescues(heat stress); ▪ Prolonged physical activity; ▪ Released animal behaviour (flight/fight/herd mentality).	▪ Full PPE (including structural firefighting gloves and respiratory protection). ▪ No entry into a confined space until all effective control measures are in place, including SRT. ▪ Only AR2 personnel should be in the Inner Cordon. If it is necessary to have a farmer or large animal vet inside the Inner Cordon, they need PPE and full briefing of the Tactical Plan. ▪ All needles/sharps to be effectively controlled. ▪ Proper egress routes maintained. ▪ Large animal vet in attendance. ▪ Appoint and fully brief a Safety Officer. ▪ Regular relief and welfare considerations for personnel working in the Inner Cordon. ▪ Full decontamination of all PPE, appliances and equipment. ▪ Strict hygiene control before eating or drinking. ▪ Escape route for released animals to be established and details communicated to all persons in the vicinity.
Fire crews injured due to the actions of: ▪ Emotionally charged and potentially aggressive owners and members of the public; ▪ Untrained farm/equine workers/ vets/Firefighters; ▪ Any person unfamiliar with the ICS; ▪ External personnel operating mechanical lifting equipment.	▪ Strict maintenance of cordons. ▪ All persons inside the Inner Cordon are the responsibility of NIFRS. ▪ Effective communications established between NIFRS and operators of heavy lifting equipment.

Significant Hazards	Control Measures
▪ Zoonoses Zoonoses are easiest described as animal diseases that are easily transferable to humans. Some of the more common are listed below. - Brucellosis - from cattle; - Leptospirosis (Weil's disease) - from rats; - Orf - from sheep; - Ringworm - from cattle or sheep; - Streptococcus - from pigs. **(WARNING - PREGNANT FEMALE FIREFIGHTERS ARE AT SPECIFIC RISK.)**	▪ Consider viability of the trapped animal(s). ▪ Professional (large animal veterinary) guidance and support. ▪ Information from animal owner. ▪ Suitable PPE (including structural firefighting gloves and respiratory protection). ▪ Suitable cleaning/decontamination of PPE and Fire Service equipment. ▪ No eating, drinking or smoking inside the Inner Cordon. ▪ Minimum personnel in the risk area. ▪ Recording of potential exposure and associated health surveillance. ▪ Robust ICS during operation of decontamination procedures, to include decontamination of PPE. ▪ Do not expose female Firefighters to animals with a confirmed or suspected disease or to ewes during lambing season.

3 OPERATIONAL CONSIDERATIONS

3.1 EN ROUTE

Immediate Considerations

- Consider additional Fire Service resources you may require on arrival, eg, AR2, SRT. These resources may have long travel distances so request at the earliest opportunity.
- Consider other agencies, eg, large animal vet (to be requested by owner), Department of Agriculture and Rural Development (DARD), Local Council Animal Welfare Officer (AWO), Police Service of Northern Ireland. (DARD is responsible for the welfare of all farm animals, except horses, and Council AWOs are responsible for the welfare of all domestic animals, donkeys and horses – the Regional Control Centre (RCC) has contact details.)
- Allocate roles to crew members.
- Consult Significant Hazards/Control Measures above.

Think through the phases of

- Decision Making Model

  - Incident information.
  - Resources information.
  - Hazards and safety information.
  - Prioritise objectives.
  - Plan.
  - Communicate and control.
  - Re-evaluate.

- Consider Tactics

  - Scene safety.
  - Preservation of human life.
  - Limited rescue role of (first responders). The main role is to preserve human life, establish the Inner Cordon, determine if the rescue can be achieved and request resources.
  - Role of AR2 responders.
  - Ask the farmer to request a large animal vet.
  - Ask the farmer to provide heavy lifting equipment.
  - Role of DARD and/or AWOs.
  - Rescue plan in liaison with AR2 Team Leader.
  - Decontamination.
  - De-brief.

- Officer-in-Charge Considerations

  - Focus on safety throughout.
  - Only AR2 personnel in the Inner Cordon.
  - Take command as opposed to getting directly involved in the incident.

3.2 IN ATTENDANCE

Initial Actions on Arrival

- Carry out a Dynamic Risk Assessment.
- Liaise with the owner or caller.
- Ensure appropriate large animal vet has been mobilised.
- Initiate the ICS.
- Carry out an initial Risk Assessment.
- Remove endangered public/owners.
- Enforce the Inner Cordon. (NIFRS has duty of care for all persons within the Inner Cordon.)
- Appoint and fully brief a Safety Officer.
- Ensure there is a sufficient level of PPE for anyone in the Inner Cordon.
- Determine a safe access route for all response personnel to the incident site.
- Determine if a rescue can be carried out and if so, request AR2.
- If a rescue is within the scope of AR1 level crew, ie, simple and safe, consider whether the animal can be safely secured post-rescue without causing further safety issues.

AR1 Crews Awaiting the Arrival of AR2 Team may:

- Identify and provide safe access and egress to and from the scene of operations.
- If necessary, clear away vegetation, wire, fences, etc, to improve access to the animal, provided they do not unnecessarily cause further distress or trauma or enter risk areas.
- If an incident occurs on the road networks, consider traffic management, road closures and if safe, stabilise vehicles.
- Identify locally available lifting equipment and operators.
- Discern whether this will be a protracted incident which may require the setting up of lighting.
- Appoint a guide to marshal oncoming appliances and place direction signs/lights.
- Assess the environment for danger to crews, or hazards that may require particular care or control measures, eg, overhead power lines, unstable ground, slurry lagoons/pits, other animals, machinery, high voltage electricity, etc.
- If a herd of animals is involved, locate the rest of the herd and a direct route to them.

Actions on Arrival of AR2

Ascertain the following points:

- Species, breed, age, sex.
- Normal demeanour.
- Medical history and any current conditions.
- What human contact the animal is accustomed to.
- Identify what has caused the situation and where the animal has come from.
- Determine the final safe and secure destination for the animal prior to rescue. Consider any public safety issues surrounding the release of the animal and ensure these are controlled or removed before commencement of rescue.
- Be especially cautious if it is an entire male of any species, a female nursing young or of a particularly dangerous breed such as Arab or Thoroughbred horses or native cattle.
- Consider viability of the animal with the vet and owner before committing to a rescue.
- Discuss with the vet and Incident Commander the preferred method of extrication and determine a strategy.
- Determine a safe route and final secure destination for the animal prior to rescue. Consider any public safety issues surrounding the release of the animal and ensure these are controlled or removed before commencement of rescue.

Rescue

- Consider the task and choose the simplest, lowest technical method appropriate in conjunction with veterinary advice and diagnosis.
- Brief all crews and external agencies thoroughly.
- Do not take unnecessary risks to save an animal.
- Remove all non-essential personnel from the rescue area and escape route.
- Ensure safe egress for personnel at all times.
- Ensure sufficient control measures are in place prior to rescue, ie, chemical restraint (sedation/anaesthesia).
- Ensure a safe system of sharps management for veterinary needles/ syringes.
- Ensure all personnel are aware of the head butt zone.
- Ensure all personnel remain out of the kicking zones.
- Monitor the suitability and integrity of PPE and replace if necessary.
- Consider the welfare of crews at protracted incidents (ambient temperature, inclement weather, strenuous activity, personal hygiene, feeding, etc).
- Always prepare a secondary plan as an animal may manoeuvre itself into a position which renders the initial plan unachievable.

Conclusion of Incident

- On conclusion of the incident, formally hand over to the owner or vet when you deem NIFRS responsibility for health and safety has ceased. Inform RCC.
- Be aware that the risk is particularly high in the recovery stages of an incident when personal guard has dropped.
- Provide for thorough decontamination of PPE, equipment and NIFRS vehicles prior to leaving site. Use Novagen in the decontamination process to remove bacterial or viral hazards.
- Ensure correct personal hygiene before eating, drinking and smoking.
- Debrief crews and external agencies prior to leaving the rescue site.
- Advise all crews to contact their doctor and the Occupational Health, Welfare and Establishment Department, Fire & Rescue Service Headquarters, if they suffer from diarrhoea, skin conditions or flu-like symptoms following an animal incident as these may indicate a zoonotic condition.
- Give advice to the owner/occupier if appropriate to avoid recurrence of the situation.
- In the absence of any animal welfare representative, any concerns regarding the welfare of animals or conditions of animal housing post-incident should be referred to the appropriate agency.

3.3 POST-INCIDENT

De-brief

- Carry out and feedback as appropriate.

Incident Recording Form (IRF)

- Complete IRF within 21 days.

Accidents or Near Misses

- Accidents are to be fully investigated and reported as per normal procedures.
- Near misses are to be reported as per normal procedures.

4 PRE-INCIDENT PREPARATION

4.1 Relevant Literature

This SOP is supported by the following SOPs and Training Notes, which are available from the Global Folder at G:\Document Management System:

- SOP 1 - Incident Command;
- SOP 4 - Water Rescue;
- SOP 6 - Generic Hazmat Incidents;
- SOP 6A - Decontamination/Washdown;
- SOP 6B - Pollution Emergencies;
- SOP 8 - Firefighter Emergencies;
- SOP 17 - Collapsed Structures;
- SOP 22 - Large Animal Rescues;
- SOP 27 - Working at Height;
- Hazmat 03 - Hazardous Materials;
- Operational 04 - Special Service Calls;
- Operational 05 - Specialist Rescue Calls;
- Operational 15 - Animal Rescue Level 1;
- Operational 17 - Animal Rescue Level 2;
- RTC 10 - Hydraulic Rescue Equipment;
- General 11 - Manual Handling.

4.2 Training

The following training should be carried out, in accordance with the Area Training Planner, to prepare in advance for attendance at large animal rescue incidents:

- AR1 - lecture to all personnel once per year.
- AR2 - personnel to receive practical refresher training at least one day per year.

All training must be recorded on the Tracking & Training database to provide an effective audit trail.

4.3 Pre-planning

It is beneficial, where practical, to carry out pre-planning activities as follows:

- Familiarisation visits to local farms with slurry pits.
- Complete regular exercises on large animal rescues.