Operational Strategy Division

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To all
Aerodrome/ Airport Operators
Airlines
Airport Service Providers/ Ground Handlers

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Reference HSE/ Transportation Section/ CB

Dear Sir or Madam

APPROACH TO AIRCRAFT WITH ENGINES RUNNING – GPU ATTACHMENT

Background

In May 2008 HSE wrote an open letter to the industry outlining our concerns about the emerging practice of *routinely* connecting Ground Power Units (GPU) to aircraft while the aircraft engines are still running, and the anti-collision lights on. Following an incident at Edinburgh Airport and further discussions with the industry, this letter now sets out our views on acceptable work practices and systems of work in any situation involving approach to an aircraft with engines running.

We are aware that there have always been situations where airside workers need to be in the vicinity of aircraft with engines running (eg connection of GPU when APU is unserviceable, or during pushback). There has, however, until recently, been a general understanding that no-one should approach an aircraft until engines are spooled down and the anti-collision lights have been turned off, unless specifically trained and authorised to do so.

Where the basic rule of not approaching an aircraft with engines running and anti-coll lights on cannot be applied in foreseeable emergency or non-standard situations (such as with an inop APU on an arriving aircraft), the procedures should be risk assessed and clearly documented. There should be clear systems of work or safe operating procedures (SOPs), with the necessary fully trained and competent workers, to ensure that the SOPs are followed. SOPs should make it absolutely clear to all workers in the vicinity that there is a non-standard operation underway, and who has overall responsibility for that procedure on the ramp.

The risk assessment process should be applied to all activities in order to establish the level of risk and any steps needed to reduce that risk so far as is reasonably practicable. Risk reduction includes training of all workers as necessary (this may include others besides those expected to attach the GPU and chock the aircraft), and ensuring competence of all concerned. There may also be a need for specific supervision of activities if residual risks exist.

Emerging issues

The emerging practice of not starting the APU on arrival seems to be based purely on cost saving for airlines. HSE concerns about the practice are based on the fact that, even if the workers directly involved in connecting the GPU are adequately trained, other workers on the ramp and in the vicinity of the aircraft may

assume it is safe to approach the aircraft, and workers or vehicles may stray into danger from jet blast or engine ingestion.

In addition to this, turnround procedures vary between airports, aircraft type and even between airlines, and there is the risk that even those workers specifically involved in a turnround may be confused about the correct procedure to be applied in each instance when approaching aircraft.

Airside operations at airports take place in a dynamic and potentially high risk environment. While HSE might expect certain levels of physical protection such as guarding and fencing in other industries, this is often not possible on the ramp, where there has to be more reliance on training, competence and supervision. In situations such as these some clear and unambiguous safety rules can be effective safety barriers – one such rule is that of not approaching the aircraft until the anti-coll lights are off. There is still the potential for this rule to be broken, but it is a sensible rule to embed in order to try to ensure that workers 'stop and think' before approaching the aircraft.

On the basis of the above, it is HSE's view that allowing routine approach to aircraft with engines running, with varying procedures, introduces significant additional risks to workers on the ramp, and should not be the procedure of choice.

Legal requirements

Health and safety legislation is not prescriptive, however the principle of ensuring safety, so far as is reasonably practicable, is embedded in the Health and Safety at Work etc Act 1974. Training and supervision will always form the lowest level in any hierarchy of risk control and it is therefore extremely unlikely that a suitable and sufficient risk assessment will result in a system of work which relies on training, competence and supervision alone, where other means are available to reduce the risk i.e. switching engines off.

The Management of Health and Safety at Work Regulations were first introduced in 1992 and implement a European Directive. These Regulations apply to all employers and in all workplaces, and set out the basic principles of risk assessment, the principles of risk prevention, procedures for serious and imminent danger, the requirement to provide comprehensible and relevant information to employees, and the requirement for employers sharing a workplace to cooperate and coordinate activities.

The air transport industry was slow to comply with this legislation, and to accept that airport employers have duties under the Regulations, and HSE produced additional guidance in 2000. HSE guidance HSG209 *Aircraft Turnround – A guide for airport and aerodrome operators, airlines and service providers on achieving control, cooperation and coordination* was produced to build on Civil Aviation Authority publication CAP642 Airside Safety Management. Both of these publications were produced with the cooperation of industry representatives.

HSG209 sets out in more detail the relevant legal duties and responsibilities of airport or aerodrome operators, airlines and service providers under the Management Regulations during aircraft turnround. It is the responsibility of the airline to ensure that their service providers have adequate arrangements and organisation for health and safety, and that activities around the aircraft are controlled and coordinated.

The exact nature of 'Turnround plans' will depend on the complexity of the turnround – the number of different service providers and the services being provided. In some cases the plan may be covered by the airline core handling manual. The important point is that all those involved are aware of the process and procedures, and that the overall turnround is coordinated. The more complex the turnround and the more people involved, the greater the need for a plan and for supervision on the ramp.

Summary

HSE considers that the introduction of routine procedures requiring approach to an aircraft with engines running, particularly where there is no 'industry standard procedure' increases risks to airside workers, and should not be a procedure of choice. Our opinion is based on the premise that dutyholders are required to ensure safety, so far as is reasonably practicable. Switching engines off reduces risk further than training and supervision alone and it is a reasonably practicable risk reduction method. While their importance cannot be ignored, training and supervision should be regarded as the final option in terms of the hierarchy of risk control.

If it is absolutely necessary to approach aircraft with engines running, for example where there is an inoperable APU, HSE will expect robust safety management procedures as required by the Management of Health and Safety at Work Regulations, and set out in HSE guidance HSG209 Aircraft Turnround.

In our opinion, the risks to all workers on the ramp associated with, and in the vicinity of, approach to an aircraft with engines running are such that the necessary level of supervision would include the presence on the ramp of a trained and competent supervisor. This supervisor should be clearly identified and identifiable, and should have the necessary authority to direct the activities of all others in the area.

HSE inspectors visiting airports will take particular interest in turnround procedures, and will take immediate action if they find evidence of significant risks and inadequate health and safety management and supervision of any aspects of activities on the ramp. If HSE inspectors consider that any aspect of risk during aircraft turnround is not adequately managed, they will take any necessary action against the airport, airline and/or service providers. This may include the issue of Improvement or Prohibition Notices, or prosecution, in line with the HSE Enforcement Policy. http://www.hse.gov.uk/enforce/index.htm

Future plans

As you may know, the aviation industry and the CAA Ground Handling Operations Team (GHOST) are pursuing ground handling safety initiatives and have taken the lead in gathering different working groups together to share information on workstreams and initiatives. Major initiatives include the IATA ISAGO programme, and IATA are now also working on an International Ground Operations Manual (IGOM). The ECAST Ground Safety Working Group (GSWG) are liaising with IATA to produce an ECAST Ground Operations Manual (EGOM).

While much of this work is aimed at aircraft and aerodrome safety, HSE strongly believes that safety management systems for airports and airlines should address both aircraft and personal safety issues, and that these two are mutually compatible and supportive. We are hopeful that the introduction of standards and good practice guidance on airside operations will contribute significantly to improved health and safety standards, and HSE will support and contribute to this work wherever possible. The work may present opportunities to address some of the issues of concern outlined in this letter.

If you have any queries about any of the above, please contact me.

Yours faithfully

Miss C Barringer
Head of Transportation Section

Annex 1 - Further information:

Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice and guidance L21 http://www.hse.gov.uk/pubns/books/l21.htm

Managing for health and safety http://www.hse.gov.uk/managing/index.htm

Risk management http://www.hse.gov.uk/risk/index.htm

Health and safety in the air transport industry http://www.hse.gov.uk/airtransport/index.htm

Aircraft turnround http://www.hse.gov.uk/airtransport/turnaround.htm

Aircraft turnround - A guide for airport and aerodrome operators, airlines and service providers on achieving control, co-operation and co-ordination. HSG209 http://www.hse.gov.uk/pubns/priced/hsg209.pdf

CAA Airside Safety management CAP642 http://www.caa.co.uk/docs/33/Cap642.pdf