KEMENTERIAN PERHUBUNGAN
DIREKTORAT JENDERAL PERHUBUNGAN UDARA

PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA
NOMOR : KP 122 TAHUN 2016
TENTANG
PEDOMAN TEKNIS OPERASIONAL BAGIAN 8900 - 3.552
(*ADVISORY CIRCULAR 8900 - 3.552*) TENTANG ADMINISTRASI DAN PENGENDALIAN PENGELASAN PESAWAT UDARA DAN UJI TAK RUSAK (UTR)
(*ADMINISTRATION AND CONTROL OF AIRCRAFT WELDING AND NON DESTRUCTIVE TESTING (NDT)*

DENGAN RAHMAT TUHAN YANG MAHA ESA

DIREKTUR JENDERAL PERHUBUNGAN UDARA,

Menimbang :

a. bahwa dalam Peraturan Menteri Perhubungan Nomor KM 17 Tahun 2009 tentang Peraturan Keselamatan Penerbangan Sipil Bagian 145 Amandemen 3 (*Civil Aviation Safety Regulations Part 145 Amendment 3*) tentang Organisasi Perusahaan Pesawat Udara (*Approved Maintenance Organizations*) sebagaimana telah diubah dengan Peraturan Menteri Perhubungan Nomor PM 164 Tahun 2015 telah mengatur ketentuan mengenai pengelasan pesawat udara dan uji tak rusak (UTR);

b bahwa dalam rangka memberi panduan bagi organisasi perusahaan perawatan pesawat udara dalam hal pengelasan pesawat udara dan uji tak rusak (UTR);

c. bahwa untuk melaksanakan hal sebagaimana dimaksud pada huruf a dan b, perlu ditetapkan Peraturan Direktur Jenderal Perhubungan Udara tentang Pedoman Teknis Operasional Bagian 8900 - 3.552 (*Advisory Circular 8900 - 3.552*) Tentang Administrasi Dan Pengendalian Pengelasan Pesawat Udara Dan Uji Tak Rusak (UTR) (*Administration And*

Control Of Aircraft Welding And Non Destructive Testing (NDT);

Mengingat :

1. Undang-Undang Republik Indonesia Nomor 1 Tahun 2009 tentang Penerbangan (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 1, Tambahan Lembaran Negara Republik Indonesia Nomor 4956);
2. Peraturan Presiden Nomor 7 Tahun 2015 tentang Organisasi Kementerian Negara (Lembaran Negara Republik Indonesia Tahun 2015 Nomor 38),
3. Peraturan Presiden Nomor 40 Tahun 2015 tentang Kementerian Perhubungan (Lembaran Negara Republik Indonesia Tahun 2015 Nomor 75);
4. Peraturan Menteri Perhubungan Nomor KM 17 Tahun 2009 tentang Peraturan Keselamatan Penerbangan Sipil Bagian 145 Amandemen 3 (*Civil Aviation Safety Regulations Part 145 Amendment 3*) tentang Organisasi Perusahaan Pesawat Udara (*Approved Maintenance Organizations*) sebagaimana telah diubah dengan Peraturan Menteri Perhubungan Nomor PM 164 Tahun 2015;
5. Peraturan Menteri Perhubungan Nomor PM 189 Tahun 2015 tentang Organisasi dan Tata Kerja Kementerian Perhubungan,

MEMUTUSKAN:

Menetapkan : PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA TENTANG PEDOMAN TEKNIS OPERASIONAL BAGIAN 8900 - 3.552 (*ADVISORY CIRCULAR 8900 - 3.552*) TENTANG ADMINISTRASI DAN PENGENDALIAN PENGELASAN PESAWAT UDARA DAN UJI TAK RUSAK (UTR) (*ADMINISTRATION AND CONTROL OF AIRCRAFT WELDING AND NON DESTRUCTIVE TESTING (NDT)*

Pasal 1

Memberlakukan Pedoman Teknis Operasional Bagian 8900 - 3.552 *(Advisory Circular 8900 - 3.552)* Tentang Administrasi Dan Pengendalian Pengelasan Pesawat Udara Dan Uji Tak Rusak (UTR) *(Administration And Control Of Aircraft Welding And Non Destructive Testing (NDT)* sebagaimana tercantum dalam Lampiran yang merupakan bagian tak terpisahkan dari Peraturan ini.

Pasal 2

Direktur Kelaikudaraan dan Pengoperasian Pesawat Udara mengawasi pelaksanaan Peraturan ini.

Pasal 3

Peraturan ini mulai berlaku pada tanggal ditetapkan.

Ditetapkan di : Jakarta
pada tanggal : 8 APRIL 2016

DIREKTUR JENDERAL PERHUBUNGAN UDARA

ttd

SUPRASETYO

Salinan sesuai dengan aslinya
KEPALA BAGIAN HUKUM,

RUDI RICHARDO, S.H, M.H
Pembina Tk. I (IV/b)
NIP. 19670118 199403 1 001

LAMPIRAN

PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA

NOMOR : KP 122 TAHUN 2016

TENTANG

PEDOMAN TEKNIS OPERASIONAL BAGIAN 8900 - 3.552 (*ADVISORY CIRCULAR 8900 - 3.552*) TENTANG ADMINISTRASI DAN PENGENDALIAN PENGELASAN PESAWAT UDARA DAN UJI TAK RUSAK (UTR) (*ADMINISTRATION AND CONTROL OF AIRCRAFT WELDING AND NON DESTRUCTIVE TESTING (NDT)*

TANGGAL: 8 APRIL 2016

ADVISORY CIRCULAR

AC 8900 – 3.552

Administration and Control of Aircraft Welding and Non Destructive Testing (NDT)

Amendment: 0

Date : March 2016

REPUBLIC OF INDONESIA – MINISTRY OF TRANSPORTATION

DIRECTORATE GENERAL OF CIVIL AVIATION

JAKARTA – INDONESIA

FOREWORD

1. PURPOSE : This Advisory Circular has been prepared to guide and assist applicable AMO or AMEL, in the processes and procedures leading to Administrationand Control of Aircraft Welding and Non Destructive Testing (NDT). Approved Maintenance Organisations should have a written program describing the guidelines used to train, qualify, and certify personnel.
2. REFERENCES : This Advisory Circular should be used in accordance with the applicable regulations.
3. CANCELLATION : -
4. AMENDMENT : The amendment of this Advisory Circular shall be approved by the Director General of Civil Aviation.

DIREKTUR JENDERAL PERHUBUNGAN UDARA

ttd.

SUPRASETYO

Salinan sesuai dengan aslinya
KEPALA BAGIAN HUKUM,

RUDI RICHARDO, S.H, M.H
Pembina Tk.I (IV/b)
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Administration and Control of Aircraft Welding and Non Destructive Testing (NDT)

1. Background

The subject of administration and control of aircraft welding and non-destructive testing (NDT) activities are aspects of maintenance that are not clearly understood by many people.

2. Who can perform welding / non-destructive testing?

Welding is the process of joining metal by fusing the materials while they are in a plastic or molten state.Welding is used extensively in the repair and manufacture of aircraft. Such parts as engine mounts and landing gear are often fabricated in this manner, and many fuselages, control surfaces, fittings, tanks, etc., are also of welded construction.

Nondestructive testing is defined as inspections, tests, or evaluations which may be applied to a structure or component to determine its integrity, composition, electrical or thermal properties, or dimensions without causing a change in any of these characteristics.

Welding and NDT maintenance functions are required to be physically performed by a person who has been trained, examined, and checked for competency in the welding or NDT method and/or particular task. The person must also be authorised by an Authorised Person to perform the maintenance.

The authorisation normally takes the form of an internal company authorisation issued by a person who has authorisation fromNational Standardization Agency of Indonesia (BSNI) or International Organizations for Standardization (ISO) Standard or others International Standard (e.g. ASME, AWS, CEN, AS/NZS, BS, ASNT, ASTM) for Welding and Non Destructive Test (NDT).

Welding and NDT Authorities issued by DGCA are granted to individual persons and they are normally transportable. Transportable means that the person can use the DGCA issued Authority in any Approved Maintenance Organisation (AMO) or in a few limited circumstances for welding or NDT, under the control of anAircraft Maintenance Engineer License (AMEL) within a particular maintenance organisation.

Note: It should be noted that the limitations placed on carrying out maintenance under CASR Part 43 and CASR Part 145. These prohibit most welding and NDT tasks that are not performed under the control of a CASR Part 65 Certificate of Maintenance Approval (COMA) holder.

Welding and NDT authorities and authorisations do not in themselves give the person the authority to make a final certification of the maintenance, only to physically perform and certify for that particular aspect of the maintenance that was carried out under the control of the AMO or AMEL. It is the responsibility of the AMO or supervising AMEL to ensure that their Certificate of Maintenance Approval (COMA) or Licence privileges cover the maintenance that the Welder or NDT person is performing.

3. Standards For Qualification and Certification Personnel.

a. Welding Personnel

Individuals who will provide equivalent competency to ensure satisfactory maintenance as set forth in relevant regulations should:

1) Have knowledge and experience gained while attending training;

2) Have OJT with an appropriately certified organization; and

3) Meet the criteria set forth in the following list of acceptable standards:
   (a). National Professional Certification Agency of Indonesia (BNSP) for Welding Personnel.
   (b). National Certifying Body for Welding Personnel of Indonesia (LSP-LAS).
   (c). International Standards Organization (ISO) document: ISO 9606, Welder Qualification Certificate.
   (d). American Welding Society (AWS)
   (e). American Society of Mechanical Engineers (ASME) IX Welding Standards.
   (f). American National Standards Institute (ANSI) for Welding Personnel Qualification.
   (g). Europian Union Standard (EN ISO) Series for Welding Personnel.
   (h). Australian/New Zealand (AS/NZS) Standards for Welding Personnel Qualifications.
   (i). Canadian Standard Association (CSA) for Welding Procedures and Personnel Qualifications.
   (j). UK's National Standards Body (BS Series) for Standards specific Welding.

(k). American Society for Testing Material (ASTM) for Standards Specification for Welded.

4) Qualification of personnel in accordance with this AC should be applicable to the following methods as specified in ISO 4063 or EN ISO 4063 – List of Welding Processes.

b. NDT Personnel

Individuals who will provide equivalent competency to ensure satisfactory maintenance as set forth in relevant regulations should:

1) Have knowledge and experience gained while attending training;

2) Have OJT with an appropriately certified organization; and

3) Meet the criteria set forth in the following list of acceptable standards:

(a). National Standardization Agency of Indonesia (BSNI) for NDT Personnel.

(b). National Certifying Body for NDT Personnel of Indonesia (LSP-URT).

(c). International Standards Organization (ISO) document: ISO 9712, Nondestructive Testing - Qualification and Certification of Personnel.

(d). AIA-NAS-410, Aerospace Industries Association, National Aerospace Standard, NAS Certification & Qualification of Nondestructive Test Personnel.

(e). ATA Specification 105, Air Transport Association, Guidelines for Training and Qualifying Personnel in Nondestructive Testing Methods.

(f). Canadian National Regulations contained in CAN/CGSB-48.9712-95, Qualification and Certification of Nondestructive Testing Personnel.

(g). MIL-STD-410E, Military Standard, Nondestructive Testing Personnel Qualification and Certification (acceptable, although now rescinded).

(h). American Society for Nondestructive Testing, Inc. (ASNT), Recommended Practice SNT-TC-1A, Personnel Qualification and Certification in Nondestructive Testing.

(i). American Society for Testing Material (ASTM) for Non Destructive Test of Material.

(j). Certain International NDI standards accepted by other approved regulatory agencies and national qualification programs have been, and may be considered to be, acceptable standards. In particular, European standard prEN 4179, Qualification and Approval of Personnel for Nondestructive Testing, is acceptable.

5) Qualification of personnel in accordance with this AC should be applicable to the following methods:
   (a). Liquid Penetrant (PT).
   (b). Radiographic (RT).
   (c). Magnetic Particle (MT).
   (d). Ultrasonic (UT).
   (e). Eddy Current (ET).

4. Tools, Equipment and Data

The AMO or AMEL must also ensure that any person under their control, including a Welder or NDT specialist, has the qualifications, training and experience to perform any maintenance that is carried out. They must also ensure that these persons have, or are provided with, the appropriate tools, approved maintenance data, facilities and equipment.

5. Procedures

All AMOs that carry out any welding or NDT tasks, even if only from time to time, must have procedures within their written system of quality control that show how the processes are controlled. If they do not have these procedures they must not carry out the maintenance.

An AMO's records should include a description of the details to be recorded for each qualified individual and identification of those responsible for developing, administering, and maintaining the organization's qualification program.

6. Approved Maintenance Data

Welding and NDT must be carried out in accordance with approved maintenance data. Where new welding or NDT procedures are produced, or equipment that is different from that recommended by the aircraft or component manufacturer is to be used, written approval from DGCA.

7. Contractors

Like any other form of maintenance, welding and NDT can be carried out by a third party for an AMO. This may be:

- Another AMO that issues a release document or, certifies for the maintenance under it's own certificate. or
- An organisation that may have the qualified staff and facilities to be able to physically carry out the maintenance but not have a CASR 145 Certificate of Approval covering the maintenance.

In either case the AMO's system of quality control procedures must indicate how it controls the welding and/or NDT when carried out under an agreement.

8. Recommendation

It is recommended that all persons carrying out or controlling welding or NDT ensure that their Certificate of Approval issued under CASR 145, and the associated system of quality control, covers any aircraft welding or NDT they intend to carry out and that the welding and NDT is performed by appropriate persons holding Authorities or authorisations.

AMEL's certifying for maintenance outside an approved maintenance organisation that has included welding or NDT must also ensure that the welding and NDT has been performed by persons holding appropriate Authorities or authorizations from Standardization agency of welding or NDT (national or international standard agency).

9. Records.

The organization should maintain appropriate personnel training records in accordance with their qualification program for as long as an inspector's qualification is in effect. Records must be available for audit by authorized personnel, and should at a minimum specify the date, time, and place of qualification, the employing organization, as well as the particular details applying to the certificate holder, such as level, special qualifications or limitations, and standards under which the holder is qualified. In addition, the records must include a copy of any DGCA certificate of maintenance approval (COMA) issued to the individual.