De/Anti-icing International Vendor Audit Checklist

For companies providing De-icing/Anti-icing Services and performing the Post De-icing/Anti-icing Check

Station Name: Completion				oletion Date							
					(Dd-mmm-yyyy)						
Type of check:	☐ Initial	Annual	Follow up	Other:							
Handling company performing de/anti-icing											
Name of company	<i>t</i> :										
Type of company	<u>:</u>										
☐ Airline ☐	Ground Handling	Other (specify):								
<u>Findings</u> (for details see checklist and findings summary on last page):											
☐ No findings	☐ Minor findings	☐ Safety rela	ited findings	•							
		Alert letter to po Follow-up inspe- auditor/ inspecto	ction to be dec								
Repeated Finding	Repeated Findings:										
Restrictions:	☐ Yes	☐ No									
(Specify if yes)											
Corrective measure	es required prior to de	icing/anti-icing op	eration:] Yes	□ No						
Follow-up audit req	juired prior to de-icing/	anti-icing operatio	n: 🗆] Yes	☐ No						
Auditor (Print Name)			Airline Conducting	Audit:							
Signature:					Date:						

A. Contact Addresses:									
Official Company Name:									
Responsible Manager:									
Department:	Phone:								
	Mobile:								
Street:	Fax:								
Zip-Code, City:	SITA Telex:								
Country:	E-Mail:								
Contact Person:									
Same data as above: Yes No									
Fill in any data that is different from above									
Department:	Phone:								
	Mobile:								
Street:	Fax:								
Zip-Code, City:	SITA Telex:								
Country:	E-Mail:								

B. Fluids

List all de-icing/anti-icing fluids likely to be used on aircraft by the previously named Handling Company.

De-icin		Fluid Type					
Manufacturer	Brand Name		ı	II	III	IV	
C. Miscellaneous							-
Discrepancies noted at the previous have been corrected and reported company? Note: Not applicable for initial inspection	d by the handling	Yes No (report the No discrepancie inspection.				ts)	

D. STATION CHECKLIST -

For companies providing De-icing/Anti-icing Services and performing the Post De-icing/Anti-icing Check

Complete the following Audit Checklist during each winter period.

Questions must be answered with Y (yes), N (no), NA (not applicable), or if unsatisfactory with X (for findings). Comments can be added to the answers if necessary.

Questions which are marked "For information only" must be answered with "Y" or "N", or "NA". Certain other items call for specific values to be recorded.

All questions which are not marked with "For information only" must be answered with "Y", "X" or "NA". ("N" is not permissible!).

Note:

All referenced documents in checklist (e.g. AEA, SAE, and ISO) are subject to revision. Always use the latest edition.

Answers marked with an asterisk (*) are safety related.

No	Questions	X	Υ	N	NA	Comments
PR	Procedures and Documentation					
1.	(For information only) Are De-icing/Anti-icing procedure manuals available from any Part 121 operating carriers. If yes, list airlines, manual name and revision status:					
2.	(For information only) Does the handling company have its own de-icing /anti- icing procedures? If yes, specify manual name and revision status:					
3.	(Safety related) Are the procedures used by the handling company based on the approved Company manual?	*				

No	Questions	X	Υ	N	NA	Comments
FL	De-icing/Anti-icing Fluids					
1.	Are fluid release documents (Certificate of Conformance or equivalent) received from the fluid manufacturer for each fluid delivery/batch and retained by the consignee for inspection, as necessary?					
2.	Are fluid delivery checks (incoming inspection) performed and records retained?					
3.	Are concentration checks (refractive index checks) on equipment carried out prior to first use of the day and after each refilling on fluids? Are results recorded and is the information available to operators? Note: For details and exceptions, refer to the International Chapter (13.2.1.1)					
4.	(Safety related) Are fluid laboratory checks carried out periodically on fluid samples (Type II, III, and IV fluids), the result recorded and is the information available to operators? Note: Fluid laboratory checks shall be performed at least at the start of the winter de/anti-icing season. Fluid samples shall be taken from all de/anti-icing vehicle spraying nozzles and from all storage tanks.	*				
5.	Does the handling company apply an acceptable procedure for fluid sampling and is this procedure documented?					
6.	(For information only) Does the handling company use degraded Type II or IV fluid as a Type I fluid with the intent of applying Holdover time?					
7.	(For information only) Does the handling company use degraded Type IV fluid as a generic Type II fluid? If yes, is the fluid certified by the fluid manufacturer?					

No	Questions	Х	Υ	N	NA	Comments
TR	Training and Qualification					
1.	(Safety related) Do the personnel carrying out the de-icing/anti-icing operation receive training in cold weather operations?	*				
2.	(Safety related) Do the personnel carrying out the Post De-icing/ Anti-icing Check receive training in cold weather operations?	*			٦	
3.	(Safety related) Are the training materials used by the handling company based on the approved Company Manual?	*				
4.	(For information only) Is recurrent training conducted within 12 months of the previous training (base month)? If training is conducted one month prior or after base month it is considered to be conducted within 12 months.					
5.	(Safety related) Do all personnel mentioned in TR 1 and TR 2 receive annual refresher training?	*				
6.	Are training records and authorizations maintained?					
7.	(Safety related) Is the success of the training evaluated? Note: Practical assessment is optional for the personnel performing the Post-De-icing/Anti-icing Check.	*				BASIC TRAINING: Theoretical Test Practical Assessment REFRESHER TRAINING: Theoretical Test Practical Assessment
8.	Are passing rates established and documented (min. 75%)? Specify procedure reference:				ı	
9.	Place a check mark for all fleet types that are trained: ATR-72 A-300 A-310 A-318 A-319 A-320 A-321 A-330 A-340 A-380 B-1900 B-727 B-737 B-747 B-757 B-767 B-777 B-787 CRJ/CL65 DH-8 BEA146 E-135/145 E-170 Dor-328 Falcon F-100 Glfstrm Learjet Jet-31/41 DC-8 DC-9 DC-10 MD-11 Saab-340 Shorts-360 MD-11 Saab-340 Shorts-360 MD-11 DC-9 DC-10 MD-10 DC-10					

No	Questions	X	Υ	N	NA	Comments		
sv	Post De-icing/Anti-icing Check and transmission of the Anti-Icing Code to the Commander							
1.	(For information only) Does the service provider perform the post de/anti-icing check? If yes, answer questions 2-5 below:					If No, specify who performs the post de/anti-icing check:		
2.	(Safety related) Are the responsibilities for the Post De-icing/Anti-icing Check in compliance with the Company Manual? Specify location if documented in handling company manual	*						
3.	(Safety related) Are communication between flight crew and the deicing/anti-icing company in compliance with the Company Manual? Specify location if documented in handling company manual	*						
4.	(Safety related) Are written procedures established for the communication between the staff performing the de-icing/anti-icing and the staff performing the Post De-icing/Anti-icing Check? Specify procedure reference: Note: Comment mandatory if not applicable.	*				Performance of De-Icing/Anti-Icing and Post De-Icing/Anti-Icing Check is done by the same person		
5.	(Safety related) Where necessary, does the person performing the Post De-icing/Anti-icing Check, have (access to) equipment offering sufficient visibility of the aircraft critical parts to be checked. Comments are mandatory. Use comment box on last page to specify details.	*						

No	Questions	X	Υ	N	NA	Comments
FA	De-icing/Anti-icing Facilities					
1.	(For information only) Where are de-icing/anti-icing operations carried out? Specify if other:					☐ Gate ☐ After Pushback ☐ Remote/Centralized Position ☐ End of Taxi-way ☐ Other (specify)
2.	(For information only) If de-icing/anti-icing is carried out at an area away from the gate, who certifies that the aircraft has been correctly de-iced/anti-iced and that appropriate surfaces are free of all forms of frost, ice, slush and snow? Specify if applicable:					
3.	(For information only) Do airline personnel have access to the remote de-icing/anti-icing position(s)?					
4.	(For information only) How is the fluid stored?			_	_	Fixed Tanks Mobile Tanks/Trailer Cubitainer/Barrels
5.	(For information only) Is the fluid heated in the storage tanks?					
6.	(For information only) If the fluid is heated in the storage tanks: What method of heating is employed and to which temperature is the fluid heated? Method: Temp. °C:					
7.	Are all storage tanks and filling ports labeled for fluid type/mix?					
8.	Are all components of storage facility constructed and maintained in accordance with the Company Manual?					
9.	Are refractometers calibrated or functional checks performed periodically and documented? What is the interval?					☐ calibrated ☐ functional checks
10.	Are de-icing/anti-icing vehicles available which are reported not to be used by the handling company? Specify if applicable Manufacturer and Model: ID number(s) of truck: Number of vehicles:					

No	Questions						N	NA	Comments
EQ	De-icing/Anti-	icing Equipm	ent I						
1.	(For information only) Specify vehicles of each separate type/modification state: Manufacturer: Model: Total number of vehicles of this model:								
	EL : L T	Tank 1	Tank 2	Tank 3					
	Fluid Type: Concentr: Temp. °C:								
	Fluid Temp.(°C) at nozzle if a	available:						
2.	(Safety related) Applicable for anti-icing with Type I Fluid only: Is the temperature of the heated fluids and fluid mixtures at or above 60 °C (140 °F) at the nozzle?						_		
3.	If the answer to question EQ 2 is "N/A", this question is optional. If the answer to question EQ 2 is "Y" or "N", this question is mandatory.								□ a) □ b)
	(For information on How is ensured and fluid mixtuinozzle?	d that the temp				_			□ c)
	a) a temperate installed at	ure sensor (e. or near the no		ter) is					
	b) the temperature of fluid water/mixtures in the tank and at the nozzle is measured and recorded several times during the season and both temperature readings are correlated c) other (please explain on comment page)								
4.	Are vehicle tanks / filling ports labelled for fluid type and/or mixture rate?								
5.	(For information or How is fluid mix					_			☐ By vehicle proportional mix system ☐ Manually in vehicle ☐ In storage facilities ☐ Premix from manufacturer

No	Questions	X	Υ	N	NA	Comments
EQ	De-icing/Anti-icing Equipment I (continued)					
6.	(Safety related) Perform a refractive index check during the audit on vehicles selected for fluid sampling. Measure refractive index of undiluted fluids (Type II, III, and IV) and/or fluid/water mixtures normally used (Type I, III, II and IV). Is the refractive index of samples taken from undiluted fluids and fluid/water mixtures within the required limit?	*				N/A is only acceptable if the truck is empty or contains water.
7.	(Safety related) Can Type II, III, or IV fluid (undiluted or hot mix) be sprayed without degrading the fluid beyond required limits? (Refer to question FL 4)	*				
8.	Can the de-icing fluid spray reach all appropriate parts of the aircraft? Indicate maximum size/category of aircraft that can be de-iced/anti-iced:					
9.	Are spraying nozzles and/or fluid selection switches/panels as appropriate, properly marked with mixture rate and/or fluid type, when more than one nozzle is installed?					
10.	Does the vehicle have a two-way communication system between basket and driver cabin?					
11.	(Safety related) Are the vehicles free of discrepancies, which could affect the safe operation (e.g. flat tires, defective lighting system, defective boom, etc.)?	*				
12.	Are vehicles maintained to a maintenance schedule, the results recorded and is the information available to operators?					
13.	If fluid is mixed by vehicle proportional mixing-system: Is the mixing-system checked according to a maintenance schedule and are the check records maintained? What is the check interval:					

No	Questions						N	NA	Comments
EQ	De-icing/Anti-	icing Equipm	nent II						
1.	(For information only) Specify vehicles of each separate type/modification state: Manufacturer: Model: Total number of vehicles of this model:								
		Tank 1	Tank 2	Tank 3					
	Fluid Type: Concentr: Temp. °C:								
	Fluid Temp.(°C	c) at nozzle if	available:						
2.	(Safety related) Applicable for anti-icing with Type I Fluid only: Is the temperature of the heated fluids and fluid mixtures at or above 60 °C (140 °F) at the nozzle?								
3.	optional. If the answer to question EQ 2 is "Y" or "N", this question is mandatory. (For information only) How is ensured that the temperature of the heated fluids and fluid mixtures is at or above 60 °C (140 °F) at the nozzle?					_			□ a) □ b) □ c)
	 a) a temperature sensor (e. g. a thermometer) is installed at or near the nozzle; b) the temperature of fluid water/mixtures in the tank and at the nozzle is measured and recorded several times during the season and both temperature readings are correlated c) other (please explain on comment page) 								
4.	Are vehicle tanks / filling ports labelled for fluid type and/or mixture rate?								
5.									□ By vehicle proportional mix system □ Manually in vehicle □ In storage facilities □ Premix from manufacturer

No	Questions	X	Υ	N	NA	Comments
EQ	De-icing/Anti-icing Equipment II (continued)					
6.	(Safety related) Perform a refractive index check during the audit on vehicles selected for fluid sampling. Measure refractive index of undiluted fluids (Type II, III, and IV) and/or fluid/water mixtures normally used (Type I, III, II and IV). Is the refractive index of samples taken from undiluted fluids and fluid/water mixtures within the required limit?	*				N/A is only acceptable if the truck is empty or contains water.
7.	(Safety related) Can Type II, III, or IV fluid (undiluted or hot mix) be sprayed without degrading the fluid beyond required limits? (Refer to question FL 4)	*				
8.	Can the de-icing fluid spray reach all appropriate parts of the aircraft? Indicate maximum size/category of aircraft that can be de-iced/anti-iced:					
9.	Are spraying nozzles and/or fluid selection switches/panels as appropriate, properly marked with mixture rate and/or fluid type, when more than one nozzle is installed?					
10.	Does the vehicle have a two-way communication system between basket and driver cabin?					
11.	(Safety related) Are the vehicles free of discrepancies, which could affect the safe operation (e.g. flat tires, defective lighting system, defective boom, etc.)?	*				
12.	Are vehicles maintained to a maintenance schedule, the results recorded and is the information available to operators?					
13.	If fluid is mixed by vehicle proportional mixing-system: Is the mixing-system checked according to a maintenance schedule and are the check records maintained? What is the check interval:					

No	Questions			X	Υ	N	NA	Comments	
EQ	De-icing/Anti-icing Equipment III								
1.	(For information only) Specify vehicles of each separate type/modification state: Manufacturer: Model: Total number of vehicles of this model:								
		Tank 1	Tank 2	Tank 3					
	Fluid Type: Concentr: Temp. °C:								
		Fluid Temp.(°C) at nozzle if available:							
2.	(Safety related) Applicable for anti-icing with Type I Fluid only: Is the temperature of the heated fluids and fluid mixtures at or above 60 °C (140 °F) at the nozzle?			*					
3.	If the answer to question EQ 2 is "N/A", this question is optional. If the answer to question EQ 2 is "Y" or "N", this question is mandatory. (For information only) How is ensured that the temperature of the heated fluids and fluid mixtures is <u>at or</u> above 60 °C (140 °F) at the nozzle? a) a temperature sensor (e. g. a thermometer) is				_			□ a) □ b) □ c)	
	 installed at or near the nozzle; b) the temperature of fluid water/mixtures in the tank and at the nozzle is measured and recorded several times during the season and both temperature readings are correlated c) other (please explain on comment page) 								
4.	Are vehicle tan and/or mixture		ts labelled for flu	uid type					
5.	(For information or How is fluid mix								□ By vehicle proportional mix system □ Manually in vehicle □ In storage facilities □ Premix from manufacturer

No	Questions	X	Υ	N	NA	Comments
EQ	De-icing/Anti-icing Equipment III (continued)					
6.	(Safety related) Perform a refractive index check during the audit on vehicles selected for fluid sampling. Measure refractive index of undiluted fluids (Type II, III, and IV) and/or fluid/water mixtures normally used (Type I, III, II and IV). Is the refractive index of samples taken from undiluted fluids and fluid/water mixtures within the required limit?	*				N/A is only acceptable if the truck is empty or contains water.
7.	(Safety related) Can Type II, III, or IV fluid (undiluted or hot mix) be sprayed without degrading the fluid beyond required limits? (Refer to question FL 4)	*				
8.	Can the de-icing fluid spray reach all appropriate parts of the aircraft? Indicate maximum size/category of aircraft that can be de-iced/anti-iced:					
9.	Are spraying nozzles and/or fluid selection switches/panels as appropriate, properly marked with mixture rate and/or fluid type, when more than one nozzle is installed?					
10.	Does the vehicle have a two-way communication system between basket and driver cabin?					
11.	(Safety related) Are the vehicles free of discrepancies, which could affect the safe operation (e.g. flat tires, defective lighting system, defective boom, etc.)?	*				
12.	Are vehicles maintained to a maintenance schedule, the results recorded and is the information available to operators?					
13.	If fluid is mixed by vehicle proportional mixing-system: Is the mixing-system checked according to a maintenance schedule and are the check records maintained? What is the check interval:					

Comments

FINDINGS Summary (Request remedial actions for findings by a B-Le

Q-No.	Findings description

Corrective Action Responses

Q-No.	Corrective Action Response