ICAO Safety Management Systems (SMS) Course
Handout N° 3 – International airport construction work
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SAFETY MANAGEMENT SYSTEMS (SMS) COURSE

Exercise 04/01 – International airport construction work

Scenario

This is a construction project to repave one of the two crossing runways at an international airport (100,000 movements a year). It’s a three-phase construction project.
Scope of the work

- **Phase 1:**
  - Extend the length of RWY 09-27 by 900 meters westward and width from 30 to 45 meters from a point 100 m from the intersection with RWY 18-36, and strengthen the runway extension (from asphalt to concrete) to increase its Pavement Classification Number (PCN).
  - Extend the length of TWY Delta by 900 meters westward.
  - Estimated time to complete the work: seven (7) months.

- **Phase 2:**
  - Construct and enlarge new threshold entrance and holding zone at TWY Charlie.
  - Extend the width of RWY 09-27 from 30 to 45 meters and strengthen (from asphalt to concrete) this part of the runway up to a point 200 m before intersection TWY A-B to increase its PCN.
  - Estimated time to complete the work: five (5) months.

- **Phase 3:**
  - Complete the construction work of RWY 09-27 for the central area of the last 350 m at the intersection of RWY 09-27 and RWY 18-36 (from asphalt to concrete), increase its width from 30 to 45 meters and its PCN.
  - Estimated time to complete the work: two (2) months.

- **Runway utilization during the construction work**
  - Continuous utilization of RWY 18-36 during the three-phase construction project.
  - RWY 18-36 length is 3.850 m and the distance available from threshold RWY 18 to intersection RWY 09-27 is 2.600 m.
  - Information must be provided to airport users.

**Group activity**

A facilitator will be appointed, who will coordinate the discussion. A summary of the discussion will be written on flip charts, and a member of the group will brief on their findings in a plenary session.

**Your task**

1) Identify the hazards using brainstorming techniques.
   a) Brainstorm a list of possible hazards, their components and their consequences *(use a flip chart).*
2) Complete the attached log *(Table 04/01)* as follows:
   a) List type of operation or activity
   b) State the generic hazard *(hazard statement)*
   c) Identify specific components of the hazard
   d) List hazard-related consequences
3) It is recommended to conduct the analysis per phase of construction.
<table>
<thead>
<tr>
<th>Nº</th>
<th>Type of operation or activity</th>
<th>Generic hazard (hazard statement)</th>
<th>Specific components of the hazard</th>
<th>Hazard-related consequences</th>
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<td>Air Traffic Services</td>
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<td>- Single runway operation</td>
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