HLWYM HEmails

From: James Weldy [jweldy@swri.edu]
Sent: Monday, February 19, 2001 5:55 PM
To: 'opovetko@swri.edu'
Subject: RE: Evap. cooler- Np,I,Tc results

Thanks - the Np dose indicates that it is pretty likely that we will have to add this into the TPA code. Eventually, we'll have to calculate a dose coefficient for all of the TPA radionuclides. Don't worry about that yet, though. We'll discuss this at the next KTI meeting.

James

-----Original Message-----
From: Oleg Povetko [mailto:opovetko@swri.edu]
Sent: Monday, February 19, 2001 4:15 PM
To: 'James Weldy'
Subject: Evap. cooler- Np,I,Tc results

James,

The evap. coolers company from that website (http://www.bigofan.com/) actually makes industrial coolers, not residential ones. They install a lot of such coolers in the barns, they cool 2,000 sq.ft area and consume 25 gal/hr (2271 L/24 hours).

University of Arizona conducted a study (http://www.ci.phoenix.az.us/WATER/evapcool.htmlon) of the coolers, that produced such results: "average daily water use by evaporative coolers for the two summers of the study was 66 gallons per day." . This would correspond to 250 L/day Annual external gamma doses at 2 m from the pad with 190 pCi/day accumulation, shielded by 1 mm of stainless steel and 1 inch of wood came out as follows:
from Nb-94 - 0.24 mrem,
from Np-237 - 2.7e-3 mrem,
from Tc-99 - 1.3e-7 mrem,
from I-129 - 2.9e-4 mrem.
Spreadsheet file is attached.

Oleg.

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Subject: RE: Evap. cooler- Np,I,Tc results
Sent Date: 2/19/2001 5:54:59 PM
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From: James Weldy

Created By: jweldy@swri.edu

Recipients:
"'opovetko@swri.edu'" <opovetko@swri.edu>
Tracking Status: None

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MESSAGE	1312	2/19/2001 5:50:03 PM

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