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VetoSD.hh

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//
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// *****
//

#ifndef VetoSD_h
#define VetoSD_h 1

#include "G4VSensitiveDetector.hh"
#include "CaloHit.hh"
#include "VetoSDMessenger.hh"

class G4Step;
class G4HCofThisEvent;
class G4TouchableHistory;

class VetoSD : public G4VSensitiveDetector
{
public:
    VetoSD(G4String name);
    ~VetoSD();

    void Initialize(G4HCofThisEvent*HCE);
    G4int GetDetID(G4Step*aStep);
    G4bool ProcessHits(G4Step*aStep,G4TouchableHistory*ROhist);
    void EndOfEvent(G4HCofThisEvent*HCE);
    void clear();
    void DrawAll();
    void PrintAll();

    inline void SetUseBirksLaw(G4bool aVal){useBirks=aVal;}

private:
    G4double BirksAttenuation(const G4Step* aStep);

    VetoSDMessenger* fMessenger;
    CaloHitsCollection *VetoCollection;
    G4int verboseLevel;
    std::map<int,int> VetoID;
    G4bool useBirks;

    G4double birk1scint;
    G4double birk2scint;
    G4double birk3scint;
};
#endif

```

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